

**An-Najah National University**  
**Faculty of Graduate studies**

# **Strategic Planning for the Industrial Estates in Palestine**

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# **Strategic Planning for the Industrial Estates in Palestine**

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## ***Dedication***

***To my lovely Home Palestine***

***To my beloved father and mother***

***To my dear husband***

***To my dear son Omer***

***To my dear sister and brothers***

***To all who support me I dedicate this work***

## *Acknowledgment*

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*At the end, I would like to thank all those who made this work successes.*

## الإقرار

أنا الموقعه أدناه مقدمه الرسالة التي تحمل العنوان:

# Strategic Planning For the Industrial Estates in Palestine

## التخطيط الاستراتيجي للمدن الصناعية في فلسطين

أقر بان ما اشتملت عليه نتائج هذه الرسالة إنما هي نتاج جهدي الخاص، باستثناء ما تم الإشارة إليه حيث ورد، وأن هذه الرسالة كاملة، أو أي جزء منها لم يقدم من قبل لنيل أية درجة أو لقب علمي أو بحثي لدى أية مؤسسة تعليمية أو بحثية أخرى.

### Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

**Student's name:**

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**Date:**

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## List of Abbreviations

<b>AFD</b>	French Agency for Development
<b>BDS</b>	Business Development Service
<b>BMIP</b>	Bethlehem Multidisciplinary Industrial Park
<b>BIE</b>	Bethlehem Industrial Estate
<b>EMS</b>	Environmental Management Systems
<b>GDP</b>	Gross Domestic Product
<b>GIE</b>	Gaza Industrial Estate
<b>JAIP</b>	Jericho Agro-Industrial Estate
<b>JICA</b>	Japan International Cooperation Agency
<b>JIFZ</b>	Jenin Industrial Free Zone
<b>JDEC<sub>o</sub></b>	Jerusalem District Electricity Company
<b>JTC</b>	Jurong Town Corporation
<b>MOPIC</b>	Ministry of Planning and International Cooperation
<b>OSS</b>	One Stop Service
<b>PADICO</b>	Palestinian Industrial Estate Development and Management Company
<b>PCBS</b>	Palestinian Central Bureau of Statistics
<b>PIEFZA</b>	Palestinian Industrial Estate and Free Zone Authority
<b>PIF</b>	Palestinian Industrial Fund
<b>PIPA</b>	Palestinian Investment Promotion Agency
<b>PNA</b>	Palestinian National Authority
<b>PPS</b>	Project for Public Spaces
<b>PRICO</b>	Palestine Real Estate Investment Company
<b>SWOT</b>	Strengths, Opportunities, Weaknesses and Threats
<b>TOBB-BIS</b>	Industrial and Technology Parks Development and Management
<b>UAE</b>	United Arab Emirates
<b>USA</b>	United States of America
<b>OIZs</b>	Organized Industrial Zones

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**Abstract**

This study aims to develop a strategic framework for the development of industrial estates in Palestine. The motivation to conduct this research came from the lack of the strategic studies and plans for the Palestinian industrial estates, despite its strategic importance for the economic development.

This research benefited from the international experience by studying a number of international industrial estates as well as analyzing the two Palestinian case studies: Jericho Agro-Industrial Park and Bethlehem Industrial Estate. Strategic analysis for the current conditions of the two case studies, along with strategic analysis for the national level, was made first using the SWOT analysis approach.

The aim is to evaluate the Palestinian industrial estates based on the experience gained in studying the international cases, in addition to assessment of the collected information, and interviewing the industrial sector decision makers and a group of the industrial estates investors, as well as planning and economic experts. The conducted analysis helped in identifying the most relevant factors to be considered in developing the sector, and in formulating the framework for the development of the industrial estates in Palestine. This framework includes vision and mission,

goals and objectives, as well as suggested strategies and key actions that will lead to achieve those goals.

The research proposed five new industrial estates in different locations in the West Bank. The outcome of the research indicated that it is important to establish the needed infrastructure and the services facilities at the first stage of the development of the industrial estate to ensure its success.

The research recommends to prepare a long-term national strategic plan for the industrial estates considering the prepared developmental framework, and to engage all the involved parties in the preparation of the detailed strategies and actions of the framework for successful implementation. In addition, it recommends to enhance the regulatory environment for the industrial estates in order to develop and protect the industrial facilities in the industrial estates.

The output of this study would be of great importance to the industrial sector stakeholders, as it can form a suitable basis for the development of the Palestinian industrial estates once adopted.

# **Chapter One**

# **Introduction**

# **Chapter One**

## **Introduction**

### **1.1 General Background**

Economy forms a basic component towards the development of a country. The agriculture as well as the industry are two of the basic pillars of Palestinian economy. Building a national economic development strategy has to include proper consideration to develop the industrial sector. Industrial estates, which are areas zoned and planned for the purpose of industrial development, form a basic constituent of the industrial sector. According to the recently prepared National Policy Agenda for 2017-2022, the industrial sector of the economy will be strengthened to provide more job opportunities and to increase the national income (PIEFZA, 2018).

Palestinian Industrial Estates and Free Zones Authority (PIEFZA) was founded in 1998 as a governmental organization working on the establishment of advanced industrial estates with the highest international standards seeking to attract foreign and domestic investments to the targeted industrial estates. This is envisaged to be achieved in a strategic manner in order to satisfy PIEFZA's vision of aiming to be one of the leading institutions providing a distinctive advanced investment environment for industrial estates to contribute in the sustainability of the Palestinian National economy (PIEFZA, 2018).

Currently, three industrial estates are operating in Palestine while one is under construction. Gaza Industrial Estate (GIE) was the first to be

founded. Jericho Agro- Industrial Park (JAIP) and Bethlehem Industrial Estate (BIE) were built after in the West Bank. Recently, a fourth industrial estate is being built in Jenin City which is Jenin Industrial Free Zone (JIFZ).

This research will focus on the strategic planning of the industrial estates in Palestine, mainly in the West Bank, due to their relevance in supporting the development of the industrial sector at specific, and the Palestinian economy at large.

## **1.2 Research Problem**

The absence of a strategic framework for establishing the industrial estates in Palestine makes it difficult to overcome the existing challenges that face the industrial sector and to attempt to improve the existing or under construction industrial estates.

There are no industrial estates in Palestine that had been established according to a strategic framework. All of the existing estates are facing problems that could have been avoided with a suitable national strategic plan for the industrial estates. Such plan is also needed to better establish the basis for the development of the Palestinian industrial sector.

Due to the different economic and political situation of Gaza Strip, and due to difficulty of obtaining the needed information, the research will consider establishing a strategic planning framework for the industrial estates in the West Bank alone.

### **1.3 Objectives of the Study**

The aim of the research is to propose the strategic framework for the development of industrial estates in Palestine. To achieve that, the following objectives are envisaged to be satisfied in this research:

1. Study the existing pattern of the West Bank manufacturing industrial estates, whether these exist, under construction, or planned.
2. Conduct strategic assessment of the current conditions as well as the future expected potentials and challenges for the industrial estates.
3. Propose the strategies and improvements within a strategic development framework for the Palestinian industrial estates.

### **1.4 Research Plan**

The plan followed in this study is briefly presented hereafter.

1. The First Phase included literature review for related studies regarding the international experience in strategic planning in general and for the industrial estate strategic planning in particular. Cases studies of international industrial estates were studies also. The literature review was conducted through reviewing related books and international journals, and searching through the internet.
2. The Second Phase involved reviewing of the history and current status of the industry and the industrial estates in Palestine.

3. The Third Phase included data collection via interviews with officials in PIEFZA and economical experts, to better understand and get in-depth information about the objectives to be achieved with the new industrial estates, the plan they follow to achieve them, the challenges they face, and the obstacles whether they could or could not overcome, but are still important and need to be addressed. Interviews were also made with a sample of local industrial investors to see how the industrial estates have helped them to achieve their goals as investors and if they have suggestions that will help for improvement.
4. The Fourth Phase was selecting industrial estates as study areas to study their settings, the factors that affected their establishment, whether these were political, economic or other factors, and if there were major deviations from the basic plan due to these factors. Next, the estates were analyzed to examine whether the development of these was aligned with the international planning for industrial estates experience. After that, SWOT analysis was conducted to identify the strengths, weaknesses, opportunities, and threats facing the industrial estates in Palestine.
5. The Fifth Phase of the research was developing of a strategic framework for industrial estates in Palestine, taking into account the outcome of the analysis, especially which resulted from using SWOT approach, identifying the goals, objectives, and the key strategic and relevant actions.

6. The Sixth Phase of the research included identifying the conclusions and recommendations derived from the research outcomes.

### **1.5 The Study Areas**

To analyze the current conditions for the industrial estate in Palestine and formulate a strategic framework to develop them, the researcher has chosen two study areas. The first is Jericho Agro-Industrial Park (JAIP), and the second is Bethlehem Industrial Estate (BIE). Those two industrial estates are recently developed and the first phase of each estate is currently in operation, while the second phase in each is under construction. Both cases are under the administration of PIEFZA.

### **1.6 Contents of the Study**

This Study is divided into seven chapters. The next chapter, Chapter Two, presents literature review on the key relevant definitions related to strategic planning in addition to the international experience in strategic planning for industrial estates as well as their key success factors. Chapter Three, presents the methodology and the steps followed in this research. Chapter Four, presents briefly the history and the current situation of the Palestinian industrial sector. Chapter Five presents the strategic analysis for the Palestinian industrial estates, including analysis for the current conditions and future expected influential factors, conducting SWOT analysis and determining priorities. Chapter Six shows the strategic framework established for the development of industrial estates in Palestine

including the vision, the mission, the goals, the strategies, and actions. Finally, Chapter Seven presents the conclusions resulting from the research with suggested recommendations.

**Chapter Two**  
**Literature Review**

## **Chapter Two**

### **Literature Review**

#### **2.1 Introduction**

This chapter reviews literature regarding the strategic planning process in general, and the strategic planning for the industrial estates in particular. The first section identifies the key definitions and issues related to strategic planning. The second section identifies the definitions of the industrial estates, while the third contains the main elements considered in their planning. Finally, the fourth section discusses international case studies from different countries, highlighting their experience in strategic planning for industrial estates as well as presenting relevant key success factors.

#### **2.2 Strategic Planning**

##### **2.2.1 Strategy**

The word Strategy comes from the Greek *strategia*, meaning generalship, it has been used for the first time in the military referring to the general plan of attack or defense (Nickolas, 2011). After that, many definitions have been used to this word and all of them are relevant to corporations, businesses and organizations. Some definitions of strategy as defined by various writers are briefly reviewed below.

- Andrews (1980) defined strategy as “the pattern of decisions in a company that determines and reveals its objectives, purposes or goals, produces the principal policies and plans for achieving those goals, and

defines the range of businesses the company is to pursue, the kind of economic and human organization it is or intends to be, and the nature of the economic and non-economic contribution it intends to make to its shareholders, employees, customers, and communities.”

- Tregoe and Zimmerman (1981) defined Strategy as "the framework which guides those choices that determine the nature and direction of an organization.”
- Bryson (1995) defined strategy as “a pattern of purposes, policies, programs, actions, decisions, or resource allocations that define what an organization is, what it does, and why it does it.”
- Hamel (2001) argued that the best strategy is pointed towards radical change and creating a new vision for the future in which you are a leader rather than a follower of trends set by others.
- According to Nickolas (2016), strategy refers to a "general plan of action for achieving one’s goals and objectives”.

### **2.2.2 Planning**

Planning describes the process of deciding what to do and how to do it. It can occur in the day-to-day decisions made by individuals and families or in complex decisions made by businesses and governments (PPS, 2008).

Planners are professionals who help in decision-making. They do not make decisions themselves, but they support decision-makers (managers,

public officials, citizens) by organizing information and activities. Their role is to create a logical, systematic decision-making process that leads to the best actions (PPS, 2008).

According to Litman (2013), good planning process should be:

- Comprehensive: all options are considered.
- Efficient: not wasting money or time on unnecessary steps.
- Inclusive: all the relevant persons should be involved in the process.
- Informative: results are easily understood by the stakeholders.
- Integrated: any individual or short-term decisions should support strategic, long-term goals.
- Logical: each step leads to the next.
- Transparent: all involved parties understand how the process works.

Nagy and Fawcett (2013) indicated that the planning process could fail because of inadequate resources, inadequate public or official support, and unresolved conflicts.

### **2.2.3 Strategic Planning**

Strategic planning is the process by which an organization envisions its future and develops the necessary procedures and operations to achieve that future (Pfeiffer, 1993).

Other definitions of the strategic planning by different researchers are illustrated below:

- Shapiro (2001) defined strategic planning is the overall planning that facilitates the good management of a process. Strategic planning takes the organization outside its day to-day activities. It provides the big picture of what the organization is doing and where it is going. Strategic planning gives clarity about what the organization actually wants to achieve and how to go about achieving it, rather than a plan of action for day to-day operations.
- David (2011) defined the strategic planning as formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives.
- Nickolas (2016) indicated that the Strategic planning is "a defined, recognizable set of activities."

Nagy and Fawcett (2013) indicated that there are many different procedures and methodologies for strategic planning and management. While there are no absolute rules regarding the right procedure, most follow a similar pattern and have common attributes. Generally, the frameworks have common basic phases, which are:

- Analysis or assessment, where an understanding of the current internal and external environments is developed.

- Strategy formulation, where high level strategy is developed and a basic organization level strategic plan is documented.
- Strategy execution, where the high level plan is translated into more operational planning and action items.
- Evaluation or sustainment, which is a management phase, where ongoing refinement and evaluation of performance, culture, communications, data reporting and other strategic management issues occur.

Hills and Jones (2004) indicated that the strategic planning techniques vary between authors but the substantive issues are essentially the same across them". Those techniques include:

- Establishing the organization's vision, mission and its corporate strategy.
- Setting strategic goals and objectives.
- Developing plans of action necessary to reach these goals and objectives.
- Allocating resources on a basis consistent with strategic directions, goals and objectives.
- Explain the mission and strategy and communicating it at lower levels that are supportive of those at the enterprise level.

- Monitoring results, measuring progress, and making adjustments if needed.
- Reevaluate mission, strategy, strategic goals, objectives, and plans at all levels.

The most important benefits of strategic planning include (Edilinger et al., 2009):

- Enhancing communication.
- Deeper understanding of what the firm is doing or planning and why.
- All managers and employees on a mission to help the organization succeed.
- Greater commitment from the employees to achieve the organization objectives.

## **2.3 Industrial Estates**

### **2.3.1 Industry**

Industry is the works and processes involved in collecting raw materials, and making them into products in factories (Lowe, 2001). A particular industry consists of all the people and activities involved in making a particular product or providing a particular service (Schlarb, 2001).

### **2.3.2 Industrial Estates**

Historically, industrial estates have been established to facilitate and encourage the industrial and economic development. Industrial estates, which involve grouping of industrial facilities in a defined location, and offer opportunities to improve their environmental performance in a reasonable cost. Industrial estates have been promoted for the purpose of facilitating the relocation of industrial facilities from densely urbanized areas where high land cost may not justify the industrial use of such space, and where populations living near the industrial firms may be more directly exposed to adverse environmental effects (UNIDO 1997).

Al-Qaq and Gershon (1998) defined the industrial estate as an area of land containing a group of factories equipped with necessary facilities and services, and this area is distributed into small sub-areas devoted to set up factories.

The World Bank Group (2012) identified the industrial estate as a specific area separated from densely populated areas, and zoned specifically for the industrial facilities use. Those estates must support infrastructure such as roads, power, water supply, and other utility services to all facilities located within the well-defined perimeters of the estate. National and local authorities may support the establishment of industrial estates by encouraging foreign direct investment, redistributing employment and production away from densely urbanized regions, and accelerating regional development. Industrial estates may attract industrial

firms by offering an attractive package of services such as power and water, which can be supplied continuously, reliably, and at a cost that industrial facilities could not achieve outside the industrial estate location. This package of services is often complemented with investment incentives such as exemptions from import or export duties, income tax exemptions, and various other subsidies.

### **2.3.3 Industrial Parks and Industrial Zones**

While the term industrial estates is used to refer to particular regrouping of industrial facilities, the term industrial parks is also used to refer to the same concept. On the other hand, the term industrial zones refers to an area of land set aside for industrial facilities without the explicit purpose of facilitating or promoting the provision of common infrastructure and services (Lowe, 2001).

### **2.3.4 Eco-Industrial Parks**

Eco-industrial Parks are defined as "communities of manufacturing and service businesses located together on a common property. Member businesses seek enhanced environmental, economic, and social performance through collaboration in managing environmental and resource issues" (Bizukojc et al., 2009).

Hence, the eco-industrial estate differs from the typical industrial estate because it does not only offer the possibility of sharing common pollution-control services and facilities, but also explicitly aims at promoting the exchange of goods, services, material, energy, water, waste,

and by-products. Owners and operators of an eco-industrial estate explicitly seek enhanced economic and environmental performance through the proactive management of environmental issues. Key benefit of this approach is energy recovery as well as waste recycling and minimization (Schlarb, 2001).

## **2.4 Industrial Estates Strategic Planning**

In order to obtain more competitive, cleaner modern industrial estates, a set of standards and settings should be taken into consideration in the planning process.

Salim (2008) had categorized those settings, which more concentrate on the spatial aspects, into five groups:

1. Natural settings
2. Environmental settings
3. Location
4. Availability of needed infrastructures and common utilities
5. The industry nature

Each of these categories is briefly presented below.

### **2.4.1 Natural Settings**

The success of the planner can be measured of how much he/she can take advantage of the available natural resources and use them to develop

the economy or industry. Those resources include the availability of raw materials and their quantity, natural characteristics of the site such as valley or mountain, whether there is any natural water resource nearby, and the climate indicators such as wind direction, temperature, and humidity. Considering these resources in the planning of industrial estates can significantly reduce the manufacturing costs (Grant, 1997).

#### **2.4.2 Environmental Settings**

For industrial estates to achieve their potential as effective instruments for environmental management, a number of conditions should be taken into account. These include:

- The expected environmental impact of industrial activity, pollution expected in term of type (noise, chemicals, etc.) and the carrier of this pollution (water, soil, air, etc.) (Nouri et al., 2007). It must be noted that the concentration of a large number of industrial facilities in one spot will result in large quantities of wastewater, air emissions, and solid waste. Therefore, to avoid becoming a pollution hotspot, the industrial estate must have space to accommodate proper treatment facilities and have adequate disposal (World Bank Group, 2012).
- The industrial estate geographical location should be part of the overall land use development plan. The existence of appropriate land-zoning regulations and a cumulative impact assessment of the development area is very necessary to minimize the pollution resulted (Albino et al., 2006).

- The availability of green belts with the scope of protection of the zone from any pollution that may result because of the industrial area (Ghasemian et al., 2012).
- The existence of Environmental Management Systems (EMS). The availability of a good EMS for the whole estate is a practical way to manage the environmental issues. This system should clearly define the environmental policies and rules, environmental performance objectives and targets, mechanisms by which these objectives and targets will be implemented, and a monitoring and enforcement regime aimed at achieving compliance with the objectives and targets (World Bank Group, 2012).

### **2.4.3 Location**

The availability of sufficient local market or shipping points is the first factor affecting the industrial estate success (Mazzarol et al., 2009). The planner must consider a site that allows industries to cut production costs to the maximum possible extent, taking into account the assembly of raw materials and the cost of production and distribution of the final product cost. The location is the main reason for the success or failure of industrial development. It is necessary to the establishment of all industries, especially the heavy ones, such as iron and steel plants, chemical factories and oil factories, to have near ports to facilitate the shipping of raw materials (Kumar and Kockelman, 2008).

#### **2.4.4 Availability of Needed Infrastructure and Common Utilities**

Related infrastructure includes:

- **Roads and transportation networks:** The availability of a good transportation network to serve the industrial estate is very important. In fact, the industrial estates are usually located near paved roads, railways, ports, or airports. There is no doubt that the ease of access to the transportation network is one of the most important factors affecting the industrial development due to the importance of the transfer of raw materials, goods and workers, as well as manufactured products (Heijden et al., 2011).
- **Proximity to power plants and energy production sites:** One of the key factors for the adoption of any industrial estate's location is obtaining electrical energy from a nearby power station, or alternatively creates its own power plant
- **Water and sanitation networks:** When adopting the location of the industrial estate, the possibility of linking the site with these networks should be considered.

In addition to the infrastructures, the following utilities structures are needed:

1. **Services:** There are key services that frequently been used by industrial facilities in the estates. These services are transportation services, banks, security, data processing, contracts and agreements, advertising,

accounting, legal consulting, printing and imaging, as well as other important insurance business services. These services can be divided into two categories: services that can be provided inside the industrial estate, and services that cannot be provided inside the industrial estate, but are available in the nearby areas. The size of the industrial estate and the size of its investment can determine the availability of the above services in it (Fonseca et al., 2015).

2. Labor housing: This plays an important role in the settling of the industrial estate. Experience showed that the cost of providing housing and facilities for the workers of the industrial estate is double the same estate's costs (Altes and Tambach, 2008).

#### **2.4.5 The Industry Nature**

The industry can be classified by type, nature, size, the final products nature and their characteristics. In addition, there is some important information needed to be studied such as large neighbours' influential industries, industry inputs, size of the demand, technology available, customs exemptions, and export industries (Galloway and Newman, 2014).

Industrial estates can be specialized in one type of industry, such as agro-industrial estates and chemical industrial estates, or it can be general which means they are open for all type of industries.

The size of the industrial estate can be determined according to the following elements (Galloway and Newman, 2014).

- Unemployment rate: One of the aims of the industrial estates is to provide jobs opportunities, the size of the industrial estate should be enough to provide jobs opportunities to the unemployed manpower existing.
- Population size: This is an important factor, whether this is related to the international Markets. This determines the size of the local and international demand, so it assists in determining the size of the industrial estate.

Immigration rate: It is important to consider possible immigration and how this will affect the population size whether it will increase, decrease or stay the same over time. This will help to predict the existing labour size.

- The expected urban capacity: It was found that there is a proportional correlation between the size of the nearby cities and the size of the industrial estate (Galloway and Newman, 2014).

## **2.5 Case Studies – International Industrial Estates Strategies and Development**

In this section, a number of industrial estates case studies in different parts of the world are presented.

### **2.5.1 Abu Dhabi Industrial Estates**

Industrial estates in Abu Dhabi are under the responsibilities of Abu Dhabi Zones Corporation which is a dynamic industrial development

organization located in the heart of Abu Dhabi. The corporation was launched in 2004 by the Abu Dhabi Government and is considered as the largest operator of purpose-built Economic zones in the United Arab Emirates.

Abu Dhabi Industrial Zones have had continuous growth since they started in terms of investors. The zones currently house over 600 manufacturing facilities that are home to some of the world's leading industrial players in a variety of sectors.

Abu Dhabi zones corporation vision is “To be the preferred regional destination of choice for industrial investments by 2020”, while the mission is “To develop, manage and promote world-class economic zones that spur the sustainable growth, economic development and industrial diversification across the Emirate of Abu Dhabi” (Zonescorp, 2018). Their industrial strategic plan concentrates on localizing the technology and promote diversity in order to develop a sustainable industrial sector based on knowledge and innovation.

Abu Dhabi Corporation has two Industrial Zones under their management; Al Ain Industrial City and The Industrial City of Abu Dhabi.

In term of utility and infrastructure, Abu Dhabi Zones Corporation has services that include:

1. A variety of readily available industrial plots in prime locations.
2. Fast and efficient connections to main highways, airports and ports.

3. Plots are connected to all utilities (telecommunication, water, gas, electricity and sewage).
4. Broad range of facilities for logistics and services.
5. Worker residential cities can house up to 450,000 employees, located no more than a 10-minute drive from the zones.
6. Providing a stimulating investment environment by providing a tax-free income with no restrictions on repatriation of profits, import duty exemptions on machinery and raw materials.
7. The existence of an Investor Service Center and a Foreign Labor Services Division, which offer administrative services to the investors. these services include:
  - Comprehensive value-added services and fast tracking of government approvals and licenses.
  - Provide help with land renting procedures including new land application, land reservation, land modification and land cancellation.
  - Provide help with the utilities requesting applications (power, gas and water) including new applications, upgrade and downgrade options.
  - Supervising the engineering procedures such as site planning, plot levelling and demarcation, site visits, review and approval of architectural plans, soil testing, and building permits.

- Foreign labor services including fast tracking of paper work and approvals.
- In-house foreign labor services including fast and efficient processing, issuance or renewal of visas and work permits.

In term Location settings, both of Abu Dhabi Zones are located not far from the UAE logistics facilities, transport links and residential areas (Zonescorp, 2018).

Figure 2.1 and Figure 2.2 shows Al Ain Industrial City and The Industrial City of Abu Dhabi, respectively.



**Figure (2.1): Al Ain Industrial Estate**



**Figure (2.2): The Industrial Estate of Abu-Dhabi**

### **2.5.2 Turkey Industrial Estates**

Turkey adopted an industrial strategic policy for the years 2015-2018. The strategy sets three basic industrial strategic objectives which they are increasing the weight of mid- and high-tech sectors in production and exports, transition to high added value products in low-tech sectors, and increasing the weight of companies that can continuously improve their skills. To achieve those strategic objectives, Turkey adopted the following strategies (Ministry of Industry and Trade of Turkey, 2011):

- Activate the state aid system, which is a part of an effective investment and business environment that can direct firms towards increasing their productivity.

- Activate the state aid system, which is a part of an effective investment and business environment that can direct firms towards increasing their productivity.
- Adopt measures to facilitate the adaptation to international trade and investment environment.
- The continuous development of the skills of labor force to meet current and future needs of firms.
- Facilitate the access of small and medium enterprises to finance and providing the necessary environment and means needed for them to increase their technological capacities.
- Implement policies that would make local advantages offered by each region to various sectors more significant for eliminating the imbalances between regions.

TOBB-BIS Industrial and Technology Parks Development and Management Company was founded in November 2005 by the Union of Chambers and Commodity Exchanges of Turkey (TOBB) to develop and manage industrial and technology parks in Turkey and Turkey's surrounding regions. All throughout Turkey, TOBB represents 252 chambers of industry and commerce, which since 1962 has developed and managed 258 Organized Industrial Zones (OIZs). These zones have taken up critical roles in transforming the Turkish industry through providing firms with superior investment climate at the local level. Currently, 37,000

firms operate in these OIZs, employing more than 800,000 persons (TOBB-BIS, 2018).

TOBB-BIS aims to transfer the knowledge of Turkish chambers to countries around Turkey in developing and managing industrial and technology parks, for example Jenin Industrial Estate in the West Bank, Palestine. Through this endeavor, major goal of TOBB-BIS is to act as a catalyst in private sector development, while opening new avenues of growth for Turkish companies.

TOBB-BIS manages more than 10 industrial estate and free zone in Turkey such as: Samsun Merkez Organized Industrial Zone, Adana Haci Sabanci Organized Industrial Zone, and Istanbul - Tuzla Organized Industrial Zone (TOBB-BIS, 2018).

Key success factors of TOBB-BIS in developing and managing industrial parks entails three essential pillars (TOBB-BIS, 2018):

- The first pillar rests on the best-practice industrial park applications. These include practices pertaining to physical infrastructure development in providing low cost-high quality utility services as well as offering one-stop-shop features that create a superior business environment for occupant investors. For this pillar, TOBB-BIS possesses access to a large network of organized industrial zones, free zones and technology development zones throughout Turkey with the capability to utilize full knowledge and experience of these enterprises

that have played an essential role in Turkish private sector's development since 1960s.

- The second pillar of TOBB-BIS business model focuses on its leverage to pursue a proactive investment promotion strategy which differentiates it from most other industrial estates developers. In today's context of increased globalization and competition from low-cost producers, competitive positioning of the Turkish companies requires them to look for alternative operation locations for both having access to new markets and lowering production costs. Despite this potential high demand, however, cost of expanding operations to countries surrounding Turkey is relatively high due to information and coordination failures stemming from lack of institutions supporting a healthy market economy. Removing this institutional constraint by offering one-stop-shop services to its occupant investors, TOBB-BIS aims to promote new investment opportunities in its industrial park portfolio to the 1.3 million companies, which are all members of TOBB- BIS. Depending on the specific

Advantages each industrial park in TOBB-BIS portfolio offers to certain sectors, TOBB-BIS aims to devise custom-tailored investment promotion strategy to directly match the industrial parks with the most appropriate investors.

- The third pillar of TOBB-BIS business model goes beyond simple land development operations and focuses on industrial development-related

activities. These include the coordination of capacity building programs, provision of vocational training as well as helping the host country's industrial strategy design efforts. Figure 2.3 shows Samsun Merkez Organized Industrial



**Figure (2.3): Samsun Merkez Organized Industrial Zone**

### **2.5.3 Singapore Industrial Estates**

Singapore is considered to have a highly open investment region, through which it successfully transformed itself from a mere trading port into a modern industrial economy. The chemical and life sciences industry ranks after the electronic industry as the second largest industry in Singapore's manufacturing sector and is one of the country's key engines for economic growth. The industries comprise the petroleum, petrochemicals, specialty chemicals, pharmaceuticals, healthcare, food, and beverages sectors.

One of Singapore's industrial estates is located in Jurong Island. The industrial estate accommodates leading petrochemical companies such as Chevron, Sumitomo, DuPont, Exxon, Mobil, Celanese, Mitsui, and Lonza. The vision for Jurong Industrial Estate is "To develop Singapore into an integrated world scale chemical hub specifically for the petrochemical sector" (Yang and Boon, 2004).

The Jurong Town Corporation (JTC) is Singapore's leading provider and developer of industrial space solutions and is a statutory body falling under the Ministry of Trade and Industry of Singapore. In 1991, JTC was appointed as the agent for the Jurong Island development project, responsible for planning and coordinating with the various government agencies in delivering the necessary infrastructure and services to the island (Jusuf et al., 2014).

The vision of JTC is to be an excellent industrial developer and a key driving force in advancing Singapore's economic prosperity by delighting customers with best facilities, legendary services, and lasting partnerships through our competent and passionate people, as stated by Yang and Boon (2004).

The key strategic factors that JTC uses to achieve their vision in Jurong Industrial Estate are:

- Starting of a reclamation process of the smaller individual islands to overcome the problem of high price of lands in Singapore's Jurong

Island comprises of seven different islands. The reclamation of the islands entails the reclamation of the channels and extension beyond into additional sea space to form one big island. This area covers 2,650 hectares from the initial mass of less than 1,000 hectares.

- Jurong Port, as shown in Figure 2.4, is considered Singapore's gateway for industrial and bulk cargo.



**Figure (2.4): Jurong Port in Singapore**

JTC also provides the following services for the investors in Jurong Industrial Estate:

- An amenity center was established on the island to serve as a community and transportation hub for the workers in Jurong Island. The amenity center houses facilities like an air-conditioned food court, a restaurant, a medical center, a hardware store, a convenience store and ATM's. Parking is provided at the center for cars, motorcycles, trucks and buses.

- A fire station that was designed to respond to any emergencies including petroleum and chemical fires.

#### **2.5.4 Ireland: the Shannon Development Region**

As stated by the Shannon Development Agency Report (2009), The Shannon Free Zone shown in Figure 2.5, is Ireland's largest cluster of North American investments. It has a successful track record as a location of international companies wishing to serve the European market. The key manufacturing sectors at Shannon are engineering, electronics, telecommunication, aerospace, software development, and healthcare. Examples of leading companies in Shannon include Alcatel (France), Avocent (USA), Caletron Systems (USA), De Beers (USA), GE Capital (USA), Halifax (UK), Intel (USA), Lufthansa/Swissair (Germany/Switzerland), Lufthansa Technik (Germany), Tellabs (USA), Tyco (USA) and Virgin Express (Belgium).

Shannon Development Agency is the Irish Government's regional economic development agency for the Shannon Region. Since its inception, the Shannon Development Agency has built up a reputation for its innovative development programs, especially created through cooperation with the University of Limerick and other stakeholders. Such programs include (Shannon Development Agency, 2009):

- The Shannon International Airport, which provides fast access to major international markets.

- The National Technology Park, which is a Science and Technology Park located in Limerick. Since its inception in 1984, it has become home of a growing and influential nucleus of high technology and knowledge-based companies. The Park accommodates over 80 organizations employing close to 5,400 employees. Organizations established their form a mix of multinational subsidiaries, Irish technology companies, research and development entities and support services.
- Shannon Supply Network, which is an industry led network geared to meet the contracting issues of incoming engineering and electronic companies.
- Shannon Soft, which is a network for software activities in the region, established to promote Shannon as the premier IT location in Ireland.
- The Innovation Center, which is Ireland's first digitally-networked business incubation center was established at the National Technology Park in Limerick in 1980. The center plays a pivotal role in the agency's responsibility for the promotion and development of new, indigenous industry in the region.

In addition to all of that, the strong visionary leadership and the continuous supporting and encouraging of innovation and product development are considered as a key success factor that attracted world class companies to be part of the Shannon region family as it became the most profitable location in the European Union.



**Figure (2.5): The Shannon Development Region in Ireland**

## **2.6 Conclusions**

In this chapter, key definitions and issues related to strategic planning and industrial estates are illustrated first, then the key concepts of the industrial estates strategic planning are presented, including the natural settings, the environmental settings, the location, the infrastructure and the industry nature. Moreover, some case studies for international industrial estates are presented from Arab Countries (Abu Dhabi), Europe (Ireland), East Asia (Singapore), and one of the fastest growth industrial developing countries (Turkey).

Based on the studies cases, the key success factors and the considerations for the development of successful industrial estates are identified. This will assist in the analysis and planning for the industrial estates in Palestine as will be presented later in this study. Following the

general strategic planning approaches, the next chapter introduces the methodology that has been followed in the research.

# **Chapter Three**

# **Methodology**

## **Chapter Three**

### **Methodology**

#### **3.1 Introduction**

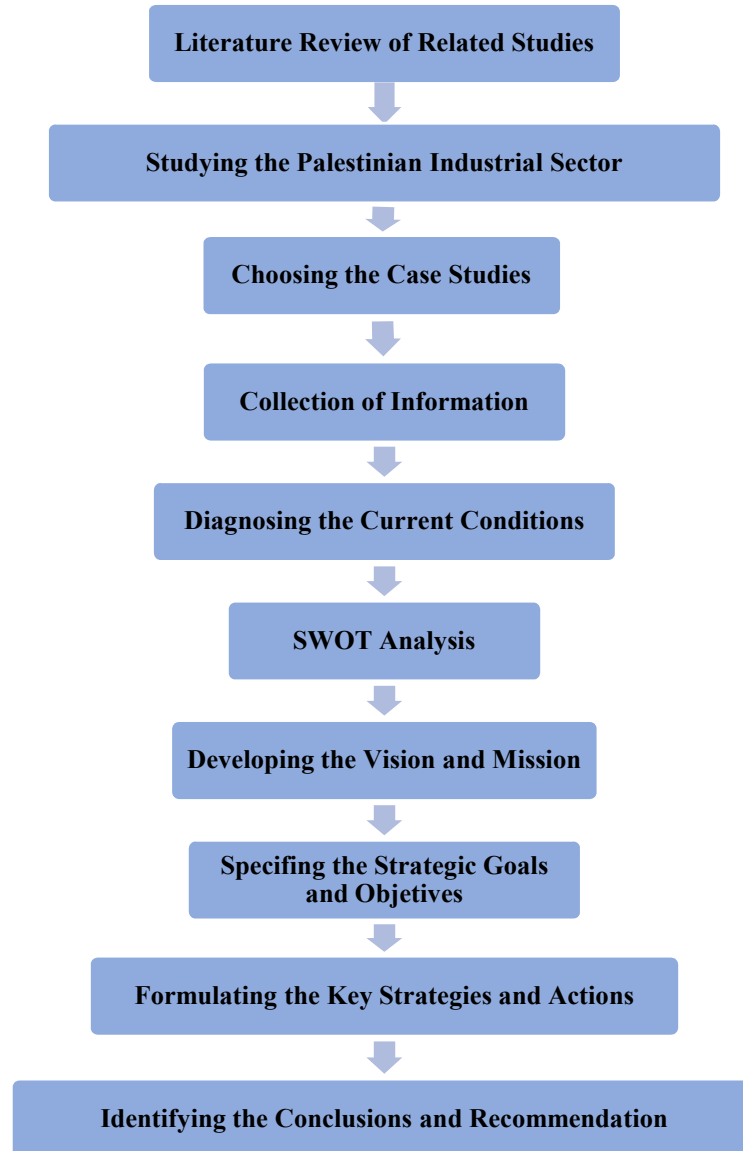
This chapter illustrates how the research was conducted. It shows the approach that had been followed in gathering the data and information, in analyzing the Palestinian industrial estates sector, and in developing a strategic planning framework for industrial estates that matches the worldwide standards. The chapter illustrates the main steps that had been followed in conducting the research as well as the research tools that had been used.

#### **3.2 Research Methodology**

The methodology which was followed in this study is shown in Figure 3.1. It is briefly illustrated in the following steps:

##### **1. Literature Review of Related Studies**

This step implies reviewing the literature on relevant concepts and definitions and the related studies regarding the international experience in establishing the industrial estates, taking the advantage of the existence of several successful international industrial estates. The literature review was conducted through reviewing related books, international journals, and the internet.



**Figure (3.1): Research Methodology**

## **2. Studying the Palestinian Industrial Sector**

The history and the current status of industry and industrial estates in Palestine also took a considerable part of the study to be able to diagnose the current conditions of the existing, under construction, or planned estates. This helped in establishing a suitable background to analyze current conditions and developing the framework for the strategic plan of industrial estates in Palestine.

### **3. Choosing The Study Areas**

The researcher has chosen two study areas to analyze the current conditions of industrial estates in Palestine. Those two areas were: Jericho Agro Industrial Estate and Bethlehem Industrial Estate.

### **4. Collection of Information**

The needed information were collected from the related literature in industrial estates strategic planning in addition to investigate related reports and studies published by ministries, companies and local researcher. In addition to that, a set of interviews were conducted with the administration of the Palestinian Industrial Estates and Free Zone Authority (PIEFZA), the Projects Directors in the industrial estates, and experts in the international and national economy and development, in addition to interviewing a group of factories owners in both JAIP and BIE.

### **5. Diagnosing the Current Conditions**

Diagnosing the current situation of the industrial estates is necessary, considering the two studies cases, because it would assist in identifying the problems and obstacles they are facing and could hinder their work. On the other hand, this would help as well to identify the related goals and the strategies for the Palestinian industrial estates. The involvement of the factories owners in addition to industrial estates Projects Directors was very necessary to diagnose and assess the current conditions of the case studies.

## **6. Applying SWOT Analysis**

SWOT analysis is a very popular and effective analytical tools used to highlight the internal and external conditions for each industrial estate. This helped in identifying the strengths, weaknesses, opportunities and threats facing the Palestinian industrial estates, in addition to defining the goals and the strategies needed to achieve them.

SWOT analysis in this research was conducted in six domains:

- Infrastructures and availability of needed utilities
- Common facilities and structures
- Industries and their characteristics
- Natural and environmental settings
- Demographics and employment
- Institutional settings

Lists of strengths and weaknesses, as well as opportunities and threats were prepared for each of the above indicated domains. In addition, the lists were also prepared for the Palestinian industrial sector on the national level.

## **7. Developing Vision and Mission**

During the meetings held with PIEFZA and the Project Directors of both industrial estates, the vision and the mission statements for the

Palestinian industrial estates were discussed and developed based on the important issues that matter the most in the industrial estate development. In addition, the economic trends in Palestine and the diagnostic study outcome were utilized in formulating the vision and mission.

## **8. Specifying the Strategic Goals and Objectives**

As in the vision and mission statements, strategic goals and objectives were developed and specified based on the outcome of the diagnostic study as well as the current Palestinian economic status, challenges, and needs.

## **9. Formulating the Key Strategies and Actions**

Based on the developed vision, goals, and objectives, the strategies and actions needed to achieve them were identified.

## **10. Identifying the Conclusions and Recommendations**

At the end of the research, and depending on the analysis results and the strategies formulated, the researcher presented the conclusions and identified the recommendations necessary to develop and improve the current situation of the industrial estates in Palestine, and to consider the future threats and opportunities, in order to enhance their role in strengthen the Palestinian economic sector.

### **3.3 Research Methods**

The qualitative approach was used in this research as it was the best approach to describe and assess the current situation of the industrial

estates in Palestine in term of positive and negative aspects. In addition, the following approaches were also used in this study:

1. Descriptive approach, where the current conditions of the industrial sector and industrial estates were observed and described.
2. Comparative approach, where this approach was used to compare the existing industrial estates in Palestine with international successful industrial estates to benefit from their experience.
3. Analytical approach to analyze the existing positive and negative aspects, in both the internal and external environment, affecting the industrial estates.

### **3.4 Research Tools**

Tools that had been used in the research are summarized below as follows:

1. Internet and desk research for collecting information from related literatures in industrial estates strategic planning in addition to investigate in related reports and studies published by ministries, companies and local researchers.
2. SWOT analysis for both industrial estates case studies that have been chosen in the research only, as well as strategic analysis for the Palestinian national level.

3. Interviews with PIEFZA, Palestinian investors, and economic and development experts who they participated in planning and establishing of the Palestinian industrial estates. semi-structured interviews were made with the list of interviewers illustrated in the Appendix.

## **Chapter Four**

# **Palestinian Industrial Sector**

## **Chapter Four**

### **Palestinian Industrial Sector**

#### **4.1 Introduction**

The West Bank and Gaza Strip form what is defined as the State of Palestine. The West Bank has larger area of land which is about 5,600 square kilometers, while Gaza Strip is about 365 square kilometers (Palestinian Central Bureau of Statistics, 2016). The whole area has been exhibiting dramatic changes since the beginning of the last century. Several wars occurred, including that resulted in the occupation of West Bank and Gaza Strip by the Israeli army in 1967. All these had resulted in unstable life and economy.

As a result of Oslo peace negotiations, the Palestinian National Authority (PNA) was established in 1994 on parts of West Bank and Gaza Strip. The West Bank and Gaza Strip were supposed to form together the independent State of Palestine five years later. Considerable share of the Palestinian people who were forced to leave their home land during the several wars were supposed to start their journey back to Palestine. Those returnees were expected to heavily participate in the establishment of the economy in Palestine, combined with high expectation of local and international investment.

This chapter presents briefly the history and development of the Palestinian industry, as well as the current status of the sector in Gaza Strip and the West Bank. It also includes a section on PIEFZA and the industrial

estates under its authority. Such information, combined with previous literature on case studies of the strategic planning of the industrial estates in a number of countries, will help to identify the key priorities of strategic development for the Palestinians industrial estates.

## **4.2 Palestinian Industrial Sector Development**

The unstable political environment in Palestine affected all of the economic sectors including the industrial sector, in this section, an overview on the development of the industrial sector during the last 25 years is reviewed, in addition to the Regional Plans made for the West Bank and Gaza Strip in the year 1998-2005 which included spatial plans for the industrial estates.

### **4.2.1 An Overview of the Palestinian Industrial Sector**

An overview of the Palestinian industrial sector is illustrated in this section. This includes the industrial sector status in the year 1992, just before the PNA establishment, the year 1998, when the regional plan for the West Bank and Gaza Strip was launched, the year 2008 (ten years later), and the year 2016 ( where the latest available information is published).

In 1992, there were over 4,000 industrial facilities in the West Bank and Gaza Strip. Those facilities employed a total of around 25,000 persons. The sectoral specialization was, however, different in both regions. In Gaza Strip, the industrial productions were concentrated in textiles and clothing,

metal, wood, glass and construction materials industries, in addition to the food beverages and tobacco industries. Table 4.1 illustrates the economic indicators of industries for Gaza Strip in the year 1992.

In the West Bank, the industrial productions were concentrated in food, beverage and tobacco industries, textiles and clothing industries, in addition to the non-metallic minerals, rubber plastic, chemical, basic metals and metal products industries. Table 4.2 illustrates the economic indicators of industries for the West Bank in the year 1992.

**Table (4.1): The economic indicators of industries in Gaza Strip in the year 1992**

Type of Industry	No. of establishment	Employees	Investment (USD/ Million)	Production (USD/ Million)
Food beverage and tobacco industries	159	1,548	26	6
Textile industry	56	316	5	2
Clothing industry	535	4,954	29	21
Leather industry	26	145	1	1
Wood industry	312	13,378	12	12
Paper industry	9	89	2	0
Plastic and rubber industries	23	185	3	1
Chemical industry	28	211	3	1
Glass and building materials industries	290	1,712	30	11
Basic metal industry	7	57	1	0
Metal products industry	407	1,444	11	15
Machinery, electrical and transport equipment	26	137	2	1
Others	30	96	1	1
<b>Total</b>	<b>1,906</b>	<b>12,231</b>	<b>126</b>	<b>75</b>

Source: Palestinian Central Bureau of Statistics, 1995

**Table (4.2): The economic indicators of industries in the West Bank for the year 1992**

Type of industry	No. of establishment	No. of employees	Revenues (USD/Million)
Food beverage and tobacco	251	2,592	10,638
Textile and clothing	322	2,217	1,286
Leather and its products	132	851	1,091
Wood and its products	404	1,030	873
Rubber, plastic and chemical products	88	1,627	4,002
Non-metallic minerals	227	1,818	3,013
Basic metal and metal products	545	1,569	1,518
Other industrial products	128	718	1,548
<b>Total</b>	<b>2,097</b>	<b>12,422</b>	<b>23,969</b>

Source: Palestinian Central Bureau of Statistics, 1995

By the year 2008, the number of industrial establishments reached 14,539 establishment operating in Palestine, while the number of workers in these establishments reached 59,641 worker. Table 4.3 illustrates the main economic indicators for industrial activities by economic activity for the year 2008.

**Table (4.3): Main economic indicators for industrial activities by economic activity, 2008**

Type of industry	Value added	Intermediate consumption	Output	No. of enterprises	No. of employees
Mining and quarrying	40,110.9	27,720.9	67,831.8	230	1,311
Manufacturing	864,833.2	999,387.5	1,864,220.7	13,928	56,466
Electricity, gas and water supplies	63,393.7	60,711.2	124,104.9	381	1,864
<b>Total</b>	<b>968,337.8</b>	<b>1,087,819.6</b>	<b>2,056,157.4</b>	<b>14,539</b>	<b>59,641</b>

Source: Palestinian Central Bureau of Statistics, 2009

During the year 2016, the contribution of the industrial sector in GDP reached 9.13%, and of the total labor 5.13%. There were 19,367 industrial establishments operating in Palestine in 2016 with 98,776 workers. The volume of production from industrial activities amounted to 4,191.8 million USD and the intermediate consumption amounted to 2,415.1 million USD, while the value added of these activities amounted to 1,776.7 million USD. Table 4.4 illustrates the main economic indicators for industrial activities by economic activity for the year 2016.

**Table (4.4): Main economic indicators for industrial activities by economic activity, 2016 (Value in 1000 USD)**

<b>Economic activity</b>	<b>Value added</b>	<b>Output</b>	<b>No. of enterprises</b>	<b>No. of employees</b>
Mining and quarrying	47,544.2	88,631.1	210	1,638
Manufacturing	1,602,697.0	3,702,064.6	18,584	93,516
Electricity, gas, steam and air conditioning supply	72,360.5	322,685.4	13	2,211
Water collection, waste collection, treatment and disposal activities	54,065.5	78,386.3	560	1,411
<b>Total</b>	<b>1,776,667.2</b>	<b>4,191,767.4</b>	<b>19,367</b>	<b>98,776</b>

Source: Palestinian Central Bureau of Statistics, 2017

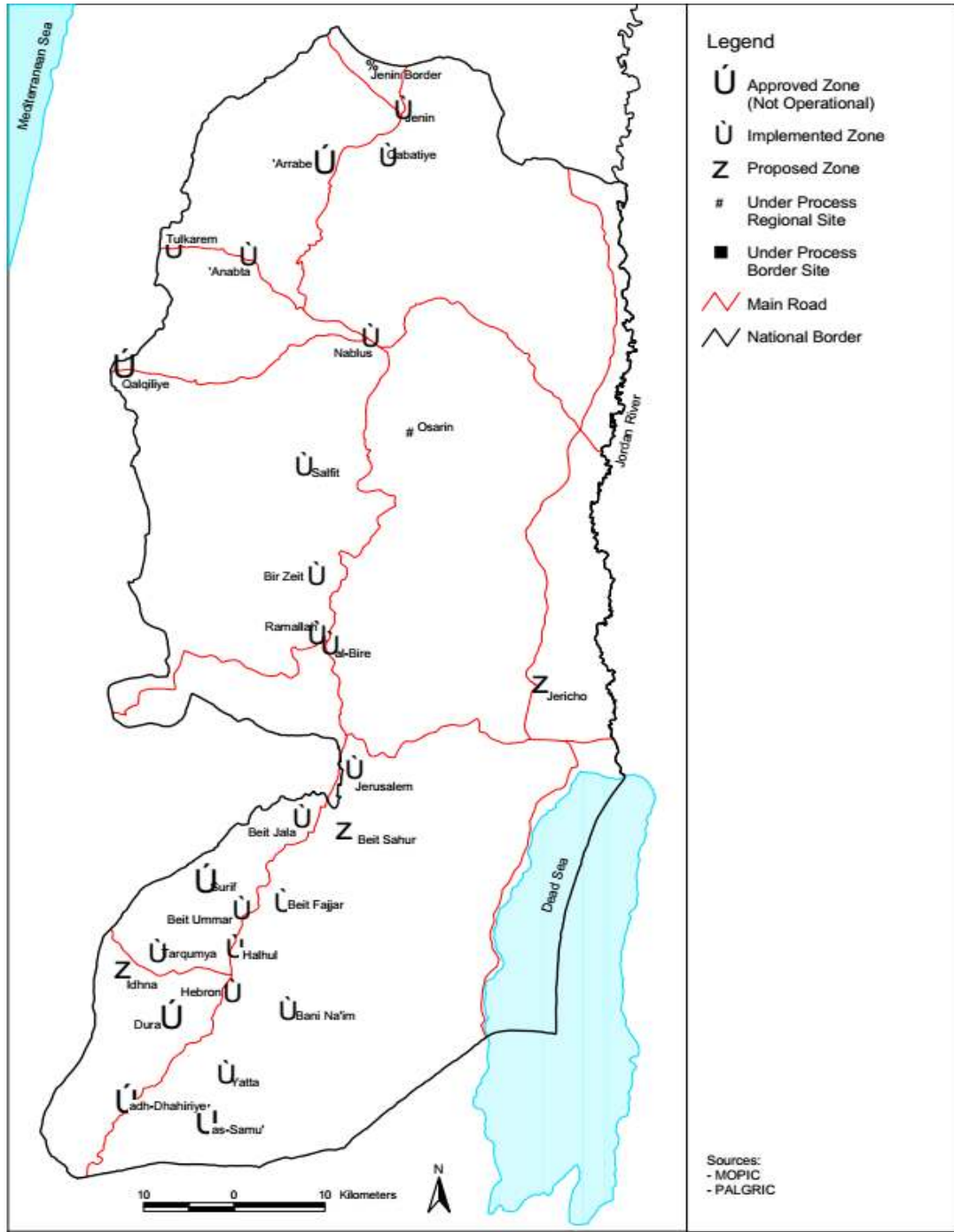
#### **4.2.2 Spatial Planning of the Industrial Sector**

Planning for industrial estates, in terms of location, never happened before 1998. Areas of craftsmanship and industry took place in the urban areas, sometimes consistence with the zoning of the urban master plans of the Palestinian cities. After the establishment of the PNA, regional plans

were prepared for the Palestinian regions taking the consideration of constructing industrial estates. The following summarize the industrial spatial situation at that time.

In 1998, the total area for the industrial zones in operation in the West Bank were approximately 7 sq. km, distributed over 17 sites as illustrated in Figure 4.1. These sites accommodated basically light industries, small workshops, car maintenance shops, etc. In most of the areas, the land was privately owned. Textiles manufacturing, wearing apparel, and leather products were the largest industries at that time in terms of establishments and Employment. Foods, beverages and tobacco productions, and chemicals were two other important branches. Branches as paper production, printing activities, and production of electronic equipment were playing a minor economic role (MOPIC, 1997).

At that time, the population forecasting for the West Bank showed that by the year 2010, the number of Palestinians in this area would reach 2.7 million including natural growth and returnees. Therefore, the total estimated need of industrial land by the year 2010 was estimated to be 32 sq.km. Based on that, the Ministry of Planning and International Cooperation (MOPIC) had launched in 1998 a spatial plan for the West Bank, as well as similar one for Gaza Strip. Palestinian Industrial Estates and Free Zones Authority (PIEFZA) was established in November 1998 to take the responsibilities of developing the industrial estates in the plans.



**Figure (4.1): The West Bank’s industrial locations in the year 1997**

**Source: MOPIC, 1997**

(PIEFZA) was established in November 1998 to take the responsibilities of developing the industrial estates in the plans.

Following is a brief summary of the regional plans for the West Bank Gaza Strip.

#### **4.2.2.1 The West Bank Regional Plan 1998-2015**

The prolonged period of occupation and its policies of establishing dependency of the Palestinian economy, had limited the ability of the industrial sector in Palestine to take or perform its role in the overall economic development. Some of these Israeli occupation restrictive policies had included restrictions on licensing to establish new firms and industries, restrictions to implementation of new industrial sites, restrictions on capital investment, and heavy and random taxation.

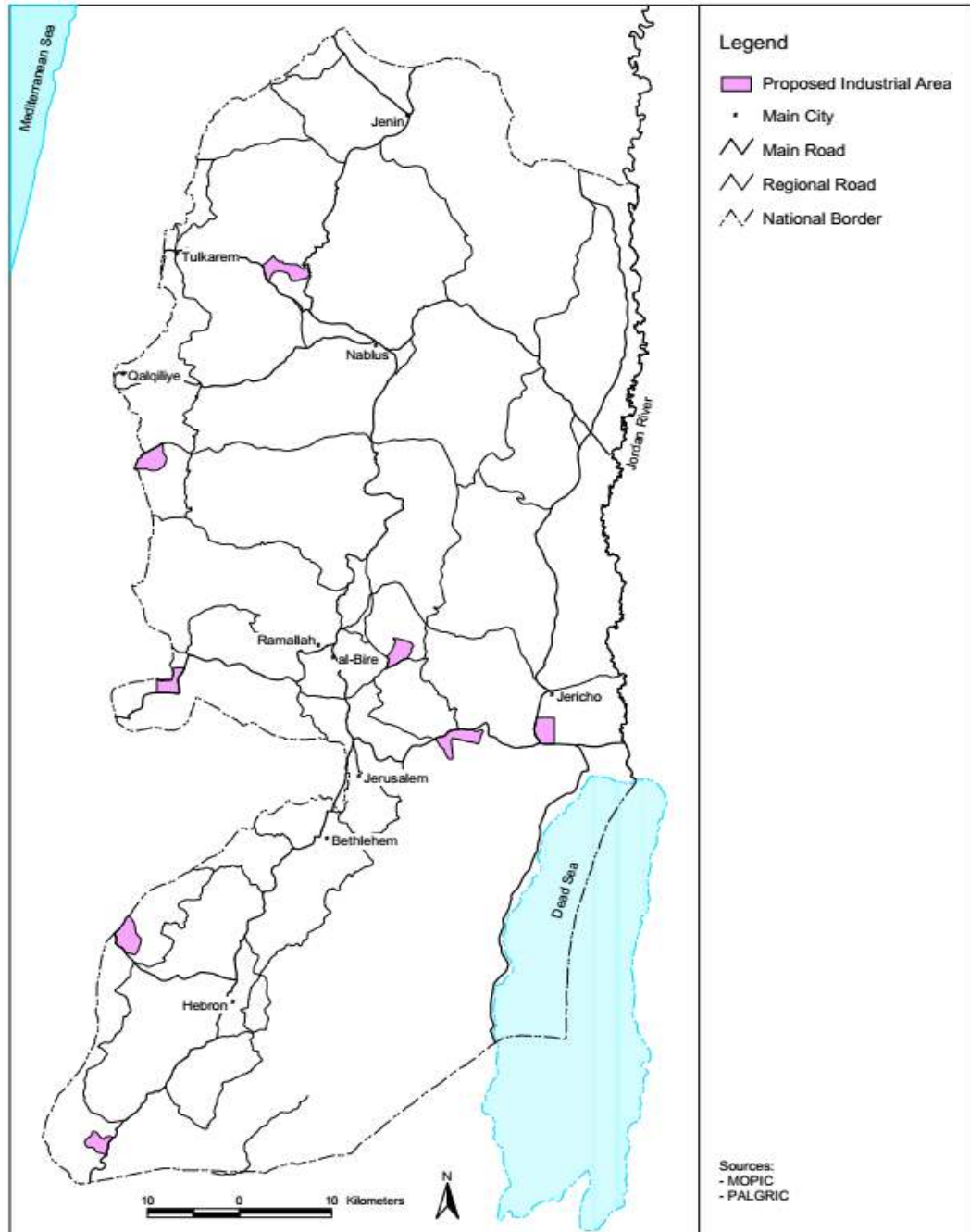
The regional plan for the West Bank 1998-2015 included strategies for the agriculture sector, the industrial sector, the tourism sector, the public services sector, in addition to the housing, transportation, water, waste water, solid waste, and energy sectors.

Regarding the industrial sector, the strategy for developing industrial areas was going along two lines MOPIC, (1997):

- Industrial sites within municipality borders working as providers of basic services and of light industry services for the close by population and for regional sites in the future.
- Industrial sites for future development outside urban development areas aiming to meet the needs related to regional development for implementing industrial projects of national priorities, and for improving the environmental conditions in cities.

The distribution of the industrial sites had been designated in the Regional Plan for the West Bank according to location criteria applied in two stages:

- In the first stage, topography and road accessibility were used in order to identify possible locations, and accordingly, 34 locations were proposed.
- In the second stage, the 34 locations were screened through the rest of the criteria. A method of grading and weighing was used. This resulted in the eight highest score locations for industrial purposes, which were proposed as illustrated in Figure 4.2.



**Figure (4.2): The proposed industrial locations for the West Bank Regional Plan in 1998-2015**

Source: MOPIC, 1997

#### 4.2.2.2 The Regional Plan for Gaza Strip 1998

The MOPIC had also launched Regional Plan for Gaza Strip in 1998. This plan was upgraded later in 2005 upon the Israeli intention to withdraw from Gaza Strip unilaterally. As the Regional Plan for the West Bank, Gaza

Strip Regional Plan also included strategies for the agriculture sector, the industrial sector, the tourism sector, the public services sector, in addition to the housing, transportation, water, waste water, and solid waste and energy sectors. Figures 4.3 and 4.4 illustrate the regional plan proposed in 1998, and the upgraded one of 2005, respectively.

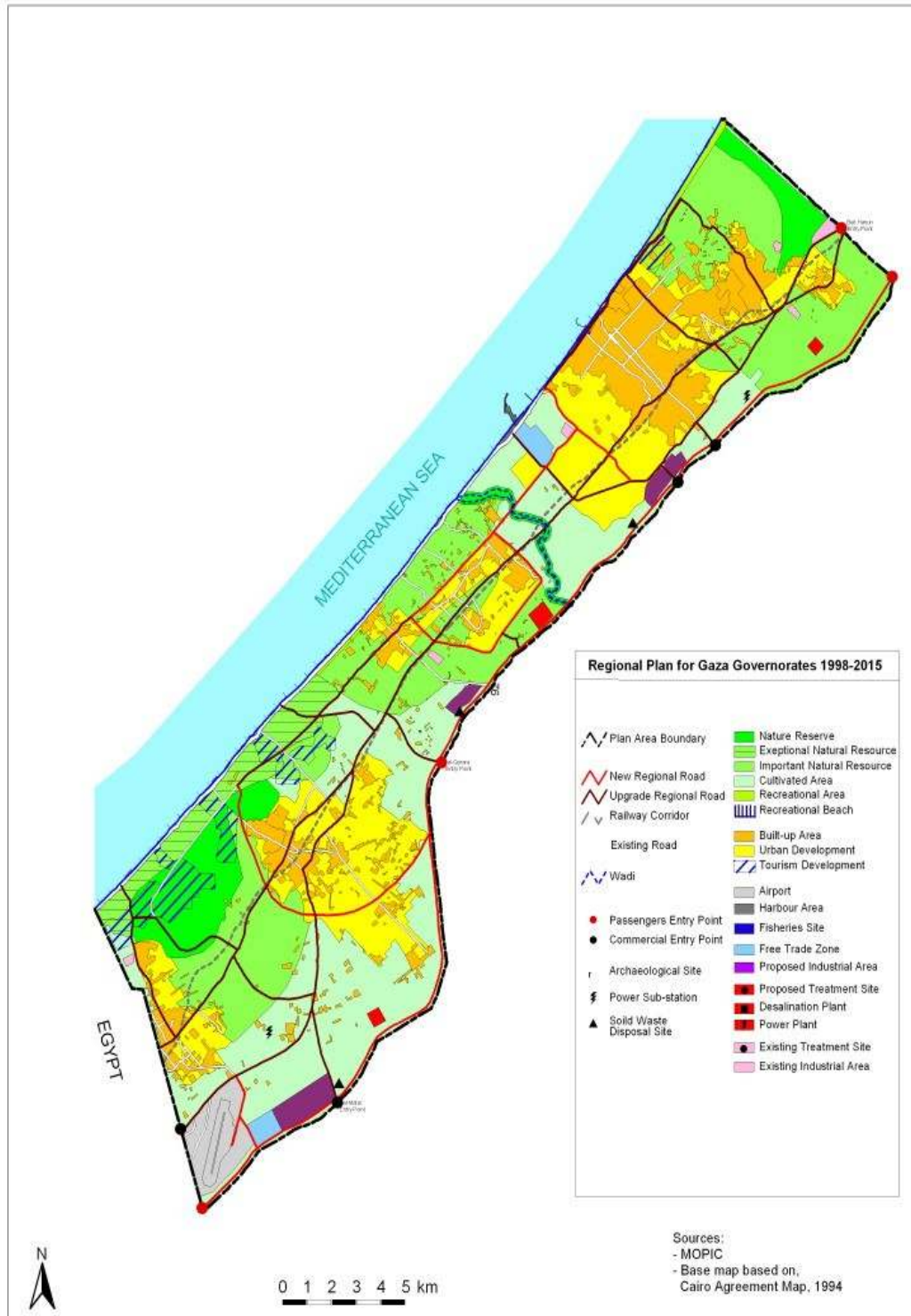
The plans had identified four positions on the east borders of Gaza Strip which are Al-Mintar, Al-Mansourah, Deir Al-Balah, and Al-Shwaikah areas. The upgraded plan in 2005 considered these four positions also but with increasing their areas due to the rapid population growth in the Strip.

#### **4.3 Palestinian Industrial Estates and Free Zones Authority PIEFZA**

The Palestinian Industrial Estates and Free Zones Authority (PIEFZA) was established in 1998 as a governmental organization working on the establishment of advanced industrial zones with the highest international standards seeking to attract foreign and domestic investments to the targeted industrial estates in a strategic manner to be one of the well-known investment promotional agencies operating in the Middle East region (PIEFZA, 2018).

PIEFZA has been promoting the concept of establishing industrial estates, where different industries can be gathered within specific geographical areas. Gaza industrial estate was the First to be established, which became operational in 1999. It is located City and extends over 485

dunums. It was followed by other estates in a number of cities in the West Bank (PIEFZA, 2018).



**Figure (4.3): Gaza Strip Regional Plan 1998**

Source: MOPIC, 2005

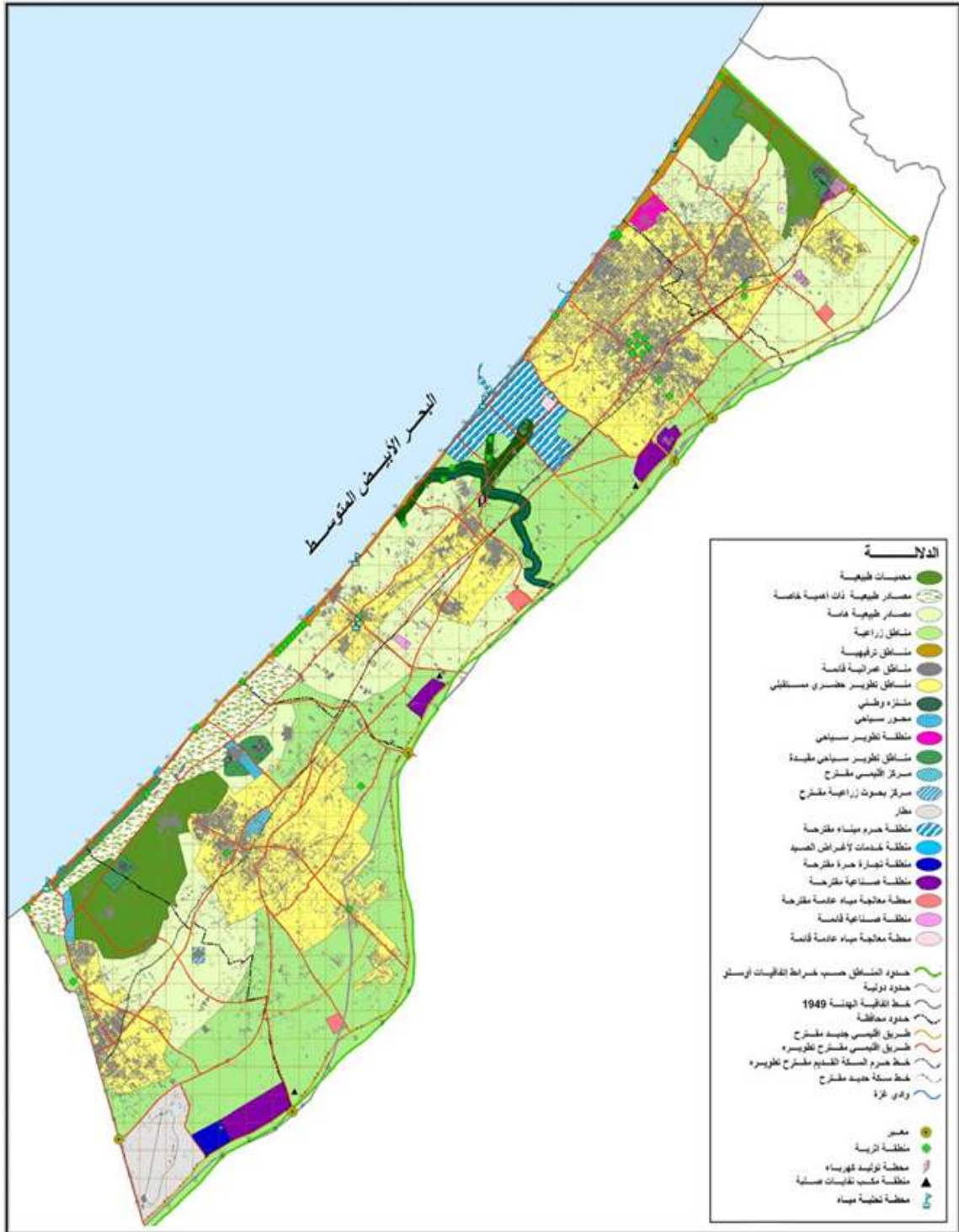


Figure (4.4): Gaza Strip Regional Plan 2005

Source: MOPIC, 2005

The vision of PIEFZA is “To be one of the leading institutions providing a distinctive advanced investment environment for industrial estates to contribute in the sustainability of the Palestinian national

economy.” The mission of PIEFZA is “To contribute in raising the living standards and cut down the unemployment domestic rate by creating, developing and managing advanced industrial estates through unique partnership and full cooperation with the private sector hand by hand to have a highly competitive eco-friendly industrial estate through highly qualified, fully skilled and specialized staff” (PIEFZA, 2018).

The goals of PIEFZA are defined to be (PIEFZA, 2018):

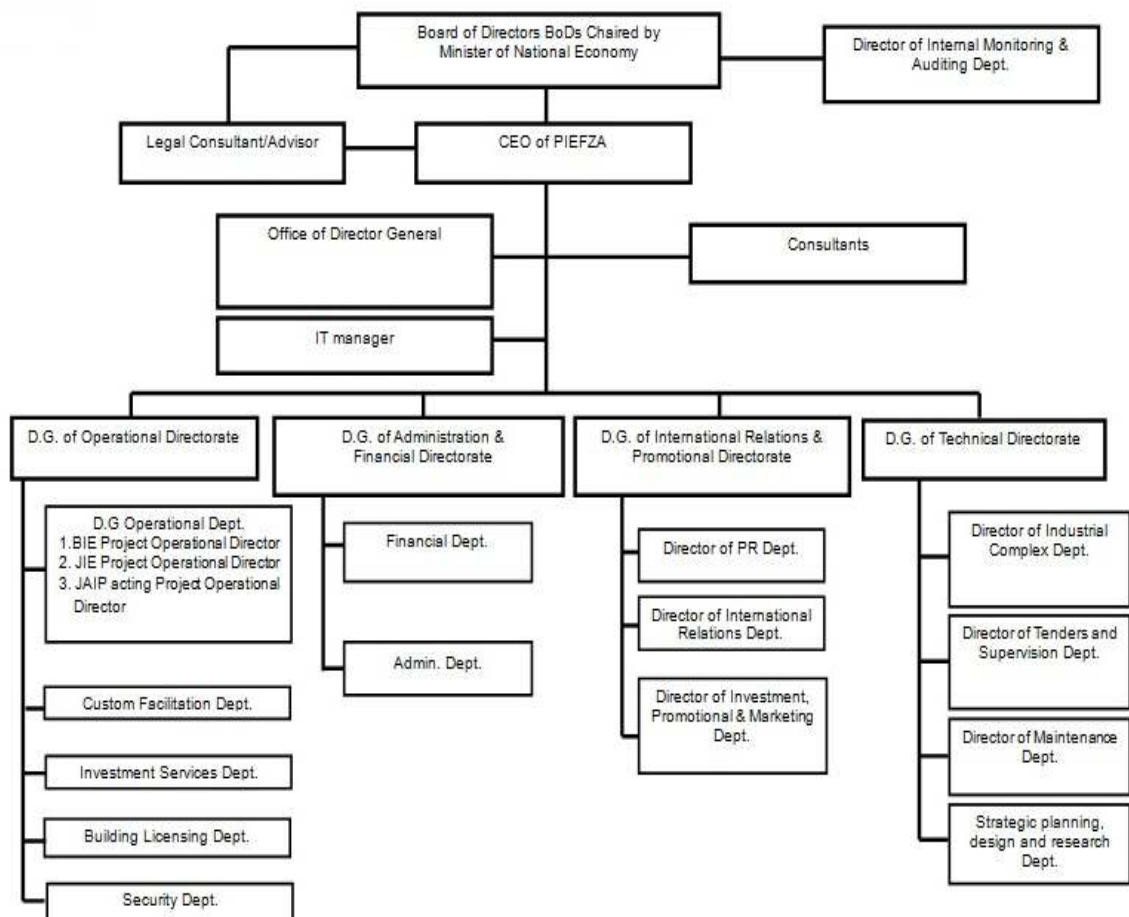
- Successful development of the industrial sector through increasing its competitive advantage.
- Provide unique favorable investments conditions to upraise domestic and foreign investments.
- Construct environmental friendly industrial estates.
- Gather all the industrial facilities in the industrial estates locations.
- Adopt the high technological techniques and systems in the industrial estates.

It has to be stated that no strategic plan was prepared for PIEFZA or for the development of the industrial estates in Palestine.

In addition to the human capital working in PIEFZA, there is cooperation with local and international consultants, mainly Japanese Consultants. PIEFZA is trying to benefit from the international experience in Industrial Estates Development by sending their employees to visit

international industrial estates in Japan, China, Malaysia, Turkey, and Jordan.

Figure 4.5 shows the organization charts of PIEFZA. It shows the organizational structure of PIEFZA starting from the Board of Directors chaired by the Minister of National Economy, following by the CEO of PIEFZA reaching finally to PIEFZA's different departments such as the Strategic Planning Department.



**Figure (4.5): PIEFZA's organization chart**

Source: PIEFZA, 2018

Industrial estates are counted as one of the main adopted strategies used by Palestinian government to attract investment and develop the

Palestinian economic, as well as a main source of providing job opportunities.

When a developer applies to PIEFZA to develop an industrial estate, PIEFZA submits this application to the Council of Ministers attached with a feasibility study for the industrial estate and a proof of financial proficiency for the developer. When the Council of Ministers approves the application, PIEFZA starts immediately looking for a land to develop the industrial estate in the location the developer asks for, or if the developer did not specify a place, PIEFZA chooses a location depending on the local market requirements<sup>1</sup>.

Finding appropriate land to build the industrial estate on is a big challenge for PIEFZA. More than 60% of the lands in the WB are under the Israeli occupation control “Area C”, while the remaining is under the Palestinian control “A or B Areas”. Their ownership is divided into government ownership or private ownership<sup>2</sup>.

In case the land is located in “A or B Areas” and owned by the government, PIEFZA applies to the Council of Ministers to allocate this land for the industrial use and to rent it to the developer, who will pay its rent to the government. If the land located in “A or B Areas” is owned by a non-governmental entity, the government acquires it from the owner and pays a proper compensation.

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<sup>1</sup> This information is based on the interview with Dr. Ali Shaath, CEO of PIEFZA.

<sup>2</sup> This information is based on the interview with Eng: Fadwa Azem, Director of Planning and Studies.

On the other hand, if the land is located in “C Areas”, the process is more complicated because the PNA will ask the Israeli government to transfer this land to “Area B”, so that it will be under the PNA control. When the Israeli side approves, the PNA starts to acquire this land from their original Palestinian owner and pays him a proper compensation, then the government delivers it to PIEFZA.

When the land issue is settled, PIEFZA starts to build the external infrastructure to connect it with the nearby services, such as roads, water and electricity. The internal infrastructure is Department, PIEFZA. The responsibility of the developer which is usually be integrated with the areas and open lots. PIEFZA works at this stage as a facilitator or a regulator to help and facilitate the work of the developer, especially in issues of licenses and official processes. The developer must pay PIEFZA a share of his annual profit, usually around 15%<sup>1</sup>.

Industrial estates that have been developed by PIEFZA and are currently operating or under construction are:

1. Gaza Industrial Estate (GIE)
2. Jericho Agro-Industrial Park (JAIP)
3. Bethlehem Industrial Estate (BIE)
4. Jenin Industrial Free Zone (JIFZ), which is now under construction

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<sup>1</sup> This information is based on the interview with Dr. Ali Shaath, CEO of PIEFZA.

### **4.3.1 Existing Industrial Estates**

Currently three industrial estates are operating. JAIP is operating in Jericho, BIE is operating near Bethlehem, and GIE is operating in Gaza City. Detailed information on each one of these is presented hereafter.

#### **4.3.1.1 Gaza Industrial Estate (GIE)**

This industrial estate began operation in 1999. It is considered one of the most tangible achievements with respect to industrial development with proper considerations of the environmental aspects as it has a key role for ending the problems of many factories and workshops which spread significantly amongst the residential neighborhood in Gaza Strip ending the problems of many factories and workshops which spread significantly amongst the residential neighborhood in Gaza Strip (PIEFZA, 2018).

GIE is located in the northern part of the Gaza Strip east of Gaza City which is considered to be a convenient location since it is only 4 km away from Al Shohada Square (down town of Gaza City), and adjacent to Al Montar Crossing. (PIEFZA, 2018).

Detailed information on GIE is presented later in Annex I.

#### **4.3.1.2 Jericho Agro-Industrial Park (JAIP)**

This park is part of the Japanese Government's initiative, "The Corridor for Peace and Prosperity". It is one of the most important projects in Jericho and Jordan Valley area because it will revive the valley areas

which are threatened of confiscation and settlement, and thus JAIP will be an important model in developing economic projects and could be a success story of continuous support of all involved parties (PIEFZA, 2018).

JAIP started operation in 2014. It aims to create an attractive investment environment, and to organize the agro-industrial sector from being random to be organized and structured. This is in addition to generating about 5,000 direct or indirect employment opportunities. JAIP was established to attract local and foreign investments related to agricultural industries in order to develop the agricultural sector in the area and to encourage farmers to increase their crops by absorbing the surplus in the industrial park factories (PIEFZA, 2015). Figure 4.6 below shows the entrance of JAIP.



**Figure (4.6): JAIP entrance**

**Source: PIEFZA, 2018**

- **Background**

The following information provide general background about JAIP:

- ✓ **Location and Area:** JAIP is located in the south-east side of Jericho City on a 615 dunum area, 4.5 km away from the city center, and 7 km from Al-Karamah Bridge.
- ✓ **Project Phases:** JAIP has three phases which are:
  - Phase 1: The first stage of the project has been developed on 115 dunums as shown in Figure 4.7. It started its operation in 2014, 70% of the first phase is already occupied and the remaining 30% (7 hangers) is open to new investors.
  - Phase 2: This stage is planned to be on 100 dunum. It will include new hangers for the industrial facilities and services facilities such as the kindergarden, the mosque, and the supermarket.
  - Phase 3: This final stage of development is planned to be on 400 dunums, it will include new hangers.
- ✓ **Developer:** Jericho Agro Industrial Park Company (JAIP Company), which is the result of collaboration of four parties (Sanabel Company, Japan International Cooperation Agency (JICA), Amaar Group and Palestine Real Estate Investment Company (PRICO)), was chosen to be as the developer of JAIP. The concession contract was signed on June 2012 (JAIP Company, 2018).



**Figure (4.7): JAIP first phase master plan**

Source: PIEFZA, 2018

- ✓ **Fund:** The Japanese government through its initiative, “The Corridor for Peace and Prosperity” as well as the European Union (PIEFZA, 2015).

- ✓ **Land Leasing Period:** Maximum 49 years and renewable to another 49 years.
- ✓ **Type of Leasing:** Built up areas and open lots are available (PIEFZA, 2015).

- **Infrastructure**

PIEFZA and the Japanese government had established the infrastructure elements needed for the park which are:

- ✓ **Water Supply System:** A water line was constructed to connect the industrial park with the municipality's network. A tank with a capacity of 500 cubic meters, as shown in Figure 4.8, was established as well. The studies indicated that phase 1 of the industrial park needs almost 720 cubic meters daily, but after the actual operation started, it was found that this amount is enough only for the current operated facilities (forms 70% of all) and demand will be significantly more after the full operation of phase one. In addition, Jericho Municipality is not capable of providing the 720-cubic meter between the middle of April and the middle of November due to the increased demand on water in hot season in the city itself (PIEFZA, 2018).



**Figure (4.8): JAIP' water tank**

Source: PIEFZA, 2018

- ✓ **Waste Water System:** The wastewater treatment plant for JAIP was built using the Japanese fund. In addition, a storm water system with catch basins, a pumping station, and a wastewater transfer line from the collection area in the industrial park to the treatment plant are planned to be constructed.

The wastewater produced by the factories is supposed to match certain specifications. The factories are responsible for treating their wastewater until it matches those specifications (PIEFZA, 2015).

- ✓ **Roads:** An internal well-constructed road network with a length of 5 km is already constructed, in addition to an access road between the industrial park and Jericho City Center. A connector of 1.3 km leading to Road No. 90 is planned to be constructed to facilitate transportation

and movement in and out of the industrial park, especially to and from Al-Karamah Bridge Crossing and Jordan (PIEFZA, 2015).

It is planned to construct a logistic area in Jericho city connected with Al-Shoona City in Jordan by a road dedicated for the goods movement only. The project will serve as a connecting road linking Palestine to Jordan and then to the rest of the neighboring countries.

PIEFZA aims from the project to facilitate the export and import process as well as to reduce the transport costs. The existence of this logistics area can also encourage the Palestinians investors living abroad as well as the Arab investors to invest in Palestine. The biggest challenge facing the implementation of the project is the very slow process of getting the approvals from the Israeli occupational authorities. This logistic area is planned to be connected directly with the industrial park by a road dedicated for the trucks movement (PIEFZA, 2018).

- ✓ **Electricity:** A station for distributing and controlling electricity was constructed to serve the project. A feed line (3km) was constructed also to provide the park with the needed power, in addition to two transformers with capacity of 30 megawatts. These transformers are connected with the main station through the internal rooms which are prepared by the developer to transform the electricity and supply the industrial facilities and the others in the industrial park with the needed power (PIEFZA, 2015).

The studies indicate that 27 megawatts will be enough to operate the project, but when the project started operation, it was clear that 27 megawatts will not be enough and 42 megawatts would be needed to operate just the two phases of the project which is double the quantity all Jericho City needs (PIEFZA, 2018).

A solar power station producing nearly 1/3 megawatt to cover the needs of public services was constructed also.

✓ **Telecommunication:** PALTEL Company provides JAIP with telecommunication cables with 70 fiber optic, which equal to what Ramallah City needs, to provide high quality telecommunication and data transfer services to the industrial park (PIEFZA, 2018).

- **Facilities and Structures**

✓ **Administration Building:** The building, as shown in Figure 4.9, is constructed on the 1,000-square meter area by the Japanese fund. It includes offices for the administrative staff of PIEFZA and the developer, halls, gallery to show the products produced in the industrial park, BDS unit, and OSS unit, to provide all necessary governmental services for the enterprises in an efficient way. In addition, a cafeteria and a parking area are provided to serve the industrial park.

✓ **Factories Buildings:** Steel structures have been constructed to be rented by the investors for 17 USD per meter square. Each structure has a parking area for the use of trucks. JAIP also allow the investors to rent an industrial land in it for 9 USD per meter square.



**Figure (4.9): JAIP Administration building**

Source: PIEFZA, 2018

- ✓ **High Security System:** In additions to the security cameras spreading in the internal streets of the park, JAIP also has a contract with a security company to protect the security of the park.
- ✓ **Additional future facilities:** These are planned to be constructed in phase 2 of the project, there will be residencies for the workers, a bank, a kinder garden, a mosque, a supermarket, a restaurant, a medical clinic, an insurance office, a post office, a picnic area, and a petrol station.
- **Industries and their Characteristics**

JAIP was planned to target any agri-business and business people working in the field of agri-businesses, currently, and due to the lack of agri- businesses, JAIP is opened to other types of industries. JAIP offers

the investors in it a 50% discount up to 500,000 USD from building materials and factories equipment's, in addition to a collective active marketing for the tenants of the industrial park (JAIP Company, 2018).

Currently, eleven factories are actually operating in JAIP. On the other hand, the industrial factories that booked their position in JAIP are a lot more. Table 4.5 illustrates the types of industries that exist or that are booked in JAIP in addition to the number of workers and the investment size of each industry.

**Table (4.5): JAIP industries list in 2015**

<b>No</b>	<b>Industry type</b>	<b>Number of enterprises</b>	<b>Workers number</b>	<b>Investment size (USD)</b>
<b>1</b>	Food and water industry	13	292	15,884,500
<b>2</b>	Cartoon industry	1	20	1,200,000
<b>3</b>	Plastic industries	3	76	3,947,753
<b>4</b>	Soap industries	1	17	616,000
<b>5</b>	Medical industry	1	8	945,000
<b>6</b>	Solar panels industry	2	49	2,400,000
<b>7</b>	Furniture industries	1	11	1,200,000
<b>8</b>	Sanitary paper industry	2	50	3,172,497
<b>9</b>	Logistic services	1	40	9,000,000
<b>10</b>	Cosmetic industry	1	20	650,000
	<b>Total</b>	26	583	39,015,750

Source: PIEFZA, 2015

#### **4.3.1.3 Bethlehem Industrial Estate (BIE)**

BIE started operation in 2013. The French Agency for Development (AFD) funded the building of BIE infrastructure. Figure 4.10 shows a picture of BIE.

The overall objective of the project is to support and contribute to the growth of the Palestinian economy in a sustainable way, offering new jobs, high quality professional training and reducing unemployment (BMIP, 2018).



**Figure (4.10): BIE picture**

Source: BMIP, 2018

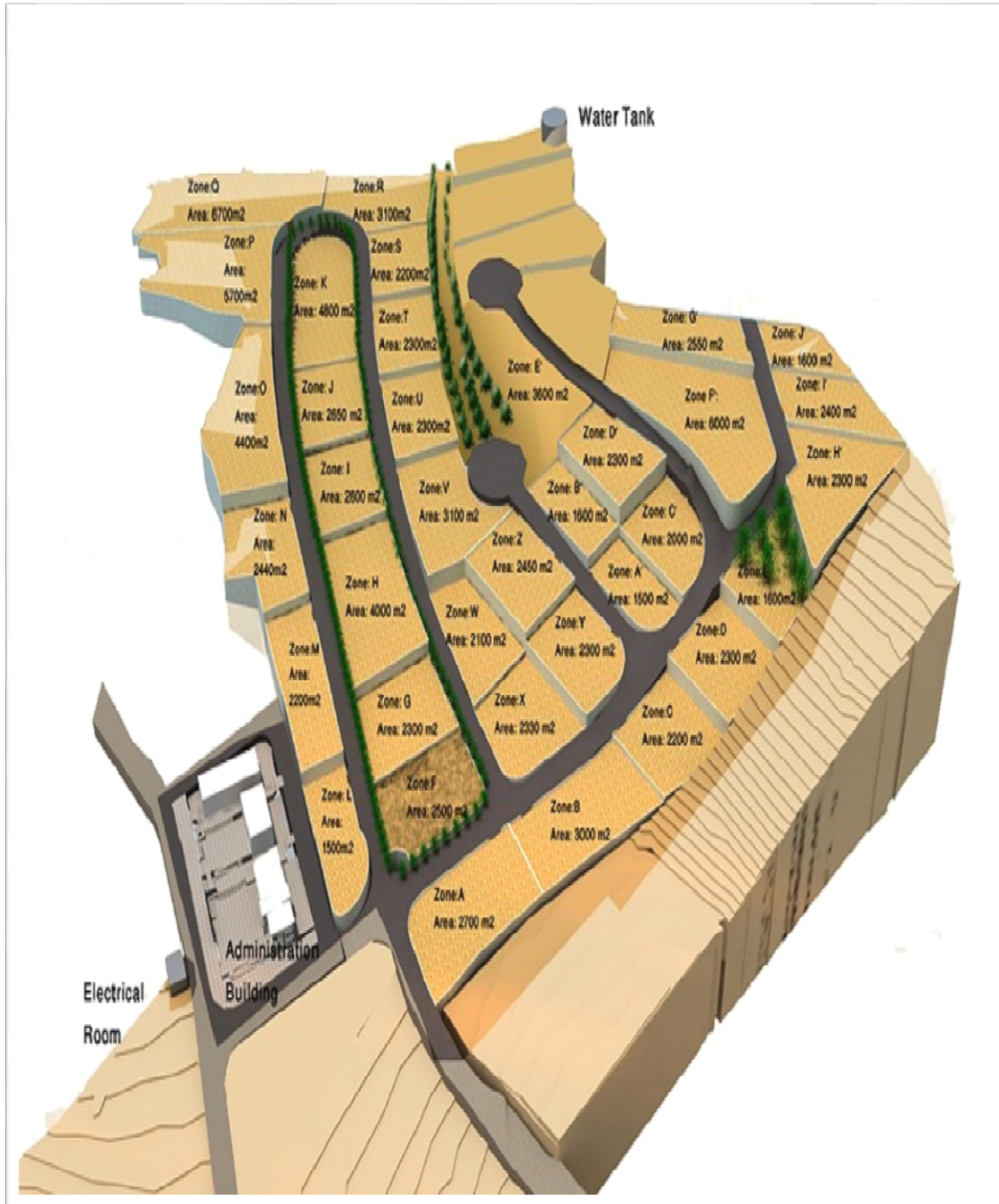
- **Background**

The following information provide general background about BIE:

- ✓ **Location and Area:** The project site is located about 3 km to the south of Bethlehem City center near Hindaza village, and about 15 km to the

north of Hebron City, the land is located in “A area”, which means that it is totally Under Palestinian control. Transport time from BIE to Jerusalem City is 30 minutes, to Al-Karamah Bridge is 2 hours, and to Ashdod Port is 2.5 hours. The park enjoys a balance between the proximity of the center of Bethlehem and an easy access and exit to and from the city. It benefits from the existence of a network of small and medium-sized enterprises located in the area of Bethlehem, as well as the positive image of the city, which is internationally acknowledged. It is proposed to be constructed on approximately 520 dunums, 220 dunums are waqf land which PIEFZA had rented from the Ministry of Awqaf and Religious Affairs, and the remaining area are private lands (BMIP, 2018).

- ✓ **Project Phases:** The total area of the industrial estate, as shown in Figure 4.11, is divided in two phases:
  - Phase 1: The first stage of the project was developed on 195 dunums and started operation in 2013, the phase if fully operated.



**Figure (4.11): BIE's master plan**

Source: PIEFZA, 2018

- Phase 2: This stage is currently under construction and is planned to be on the remaining 330 dunums.
- ✓ **Developer:** BMIP, The Bethlehem Multidisciplinary Industrial Park Ltd, was created in June 2009 to implement the Project. BIE is

considered as a French-Palestinian "Public Private Partnership" project BMIP Ltd is a 50/50 French-Palestinian company, registered in Ramallah with Palestinian partners (50%), represented by Al Mutaadeeda holding (40%) and FTF Investments (10%). As for the French partners (50%), they are Deska, an Evens Group company (40%), representing the French private sector, and the French Development for Development (AFD) representing the French governmental sector (10%). BMIP Ltd is open to additional private French and Palestinian investors (BIEM, 2018),

- ✓ **Fund:** The project is funded by the French Agency for Development AFD.
- ✓ **Land Leasing Period:** Maximum 49 years and renewable to another 49 years
- ✓ **Type of Leasing:** Open lots areas.
- **Infrastructure**

AFD has established the infrastructure elements needed for the park which are:

- ✓ **Water Supply System:** A water line was constructed to connect the industrial estate with the municipality's network. An elevated Reservoir with a capacity of (500m<sup>3</sup>/day) was constructed to supply the industrial estate with water.

- ✓ **Waste Water and Solid Waste:** BIE has wastewater collection system and treatment unit, while the solid waste collection is the responsibility of the Joint Service Council.

The wastewater produced by the factories is supposed to match certain specifications. The factories are responsible for treating their wastewater until it matches those specifications (PIEFZA, 2018).

- ✓ **Roads:** An internal well constructed roads network was constructed to facilitate the movement in and out of the industrial estate, BIE is connected with Bethlehem City center and the Palestinian external roads network with a road that was already paved before the construction of BIE (PIEFZA, 2015).

- ✓ **Electricity:** A station for distributing and controlling electricity was constructed to serve the project. A feed line (3 km) was constructed also to provide the park with the needed power, in addition to two transformers with a total capacity of 30 megawatts. These transformers are connected with the main station through the internal rooms which are prepared by the developer to transform the electricity and supply the industrial facilities and the others in the industrial park with the needed power (PIEFZA, 2015).

- ✓ **Telecommunication:** PALTEL Company provides BIE with telecommunication cables that provide high quality telecommunication and data transfer services to the industrial park (PIEFZA, 2018).

- **Facilities and Structures**

- ✓ **Administration Building:** The building was constructed using the AFD fund, it includes offices for the administrative staff of PIEFZA and the developer, a first aid service, a BDS unit that provides training for the enterprises such as financial management and energy efficiency courses, and an OSS unit to provide all necessary governmental services for the enterprises in an efficient way. In addition, the administration building is provided with a parking area to serve the industrial park. Figure 4.12 shows the administration building in BIE.
- ✓ **Factories Buildings:** Steel structures were constructed to be rented by the investors. Each structure has a parking area for the use of trucks. BIE also allows the investors to rent an industrial land to build their factories by themselves.
- ✓ **Other Facilities:** BIE also contains a bank, custom office, and a cafeteria. In addition to that, BIE is provided with a high security measures system. (BIEM, 2018).



**Figure (4.12): BIE's administration building**

Source: BIEM, 2018

- **Industries and their Characteristics**

BIE targets all kinds of small and medium industries from all kinds. The industrial estate investors can have a financial support up to 50% of the equipment price imported from France, in addition to collective active marketing for the tenants of the industrial estate.

BIE provided nearly 544 job opportunities in its first phase and is expected to provide another 1500 job opportunities when it will be totally developed. Total investment in the first phase of the estate was 27,100,000 USD.

Table 4.6 illustrates the type of industries that exist in BIE's first phase.

**Table (4.6): BIE existing industries' List in the year 2015**

#	Industry type	Number of enterprises	Workers number	Investment size (USD)
1	Public services	1	25	3,000,000
2	Napkins industry	1	20	500,000
3	Plastic industry	4	77	6,200,000
4	Lighting lamps industry	1	17	1,200,000
5	Agricultural products industry	1	25	1,000,000
6	Food industry	1	100	3,000,000
7	Metal industry	1	80	2,000,000
8	Stone and tiles industry	1	15	1,500,000
9	Import and marketing	1	15	2,000,000
10	Weaving industry	1	35	1,400,000
11	Banking services	1	10	500,000
12	Wood industry	1	70	1,600,000
	<b>Total</b>	15	489	23,900,000

Source: PIEFZA, 2015

### 4.3.2 Under Construction/ Proposed Industrial Estates

Jenin Industrial Free Zone is currently under construction. This is in addition to the construction activities for the second phases of JAIP and BIE. Moreover, there are three additional industrial estates planned to be constructed in Hebron, Tulkarm, and Qalqilya. Each of these is briefly illustrated hereafter.

#### 4.3.2.1 Jenin Industrial Free Zone (JIFZ)

Jenin Industrial Free Zone (JIFZ) is an under-construction industrial estate. The overall objective of the project is to support and contribute to

the growth of the Palestinian economy in a sustainable way, offering new jobs, where it is expected to have 5,000 immediate job opportunities and another 15,000 indirect job opportunities (PIEFZA, 2015).

More information on JIFZ is presented later in Annex II.

#### **4.3.2.2 Hebron Industrial Estate**

At the request of businessmen and Union of Chamber of Commerce and Industry in Hebron, PIEFZA is planning to build an Industrial Estate on 372 dunums in Tarqumia in Hebron Governorate. This industrial estate is planned to start operation in 2021 and is targeting mixed industries; whether there are light, medium or heavy industries. Palestinian Industrial Fund (PIF) will be the developer of Tarqumia Industrial Estate, while the fund will come from China and other donors. The industrial estate is planned to include industrial zone as well as logistics and bonded areas (PIEFZA, 2018).

#### **4.3.2.3 Tulkarm Technological Industrial Estate**

It is planned to build the Technological Industrial Estate beside Palestine Technical University (Kadoorie) on 16 dunums of Kadoorie land. The main aim from the project is to establish technological and industrial incubators for small and medium sized projects and to establish training facilities and research centers to help the new graduates to start and develop their environmentally friendly small projects, and thus providing hundreds of job opportunities (PIEFZA, 2018).

#### **4.3.2.4 Qalqilya Industrial Estate**

At the request of Qalqilya Municipality, PIEFZA is planning to build an Industrial Estate. PIEFZA requested from the Israeli side to transfer the requested area from “Area C” to “Area A”, but the Israeli side refused, and until approval is obtained, the project is currently suspended (PIEFZA, 2018).

#### **4.3.2.5 Additional Industrial Estates**

In addition to the above, the National Policy Agenda mentioned sites on the National Spatial Plan for the following major industrial areas (PIEFZA, 2018):

- Five logistic areas; four in the West Bank and one in Gaza Strip.
- Three additional industrial estates in Nablus, Salfit and Tubas.
- Two industrial estates in the Gaza Strip; one in Rafah and one in Khan Younis.
- Technological and information industrial estate linked with universities and institutions of higher education Palestine.

#### **4.3.3 Incentives Packages**

PIEFZA provides the investors in the Palestinian industrial estates with the following incentives:

- **Financial Incentives**

The investors and the tenants in the industrial estates have an access to the below financial support schemes by various donors:

- 1- **PRIDE Program (financial grand provision) for the JAIP Tenants:**

Up to 50% (Maximum 500,000 USD) of the equipment and building material cost can be supported by the grant. Overall budget of PRIDE is about 4.6 million USD from Japan Government and European Union (PIEFZA, 2018).

- 2- **French grant for the investors in BIE:** The grant is covering maximum of 50% of the French made equipment cost.

- **Tax Incentives**

Businesses in the industrial sectors will have a reduction of Corporate Income Tax for a certain duration of years (Palestinian Investment Promotion Agency- PIPA - Law Amendment 2014: 8-1) is exempted for any products to be exported by the investor.

- **Free Trade Agreement**

Palestinian investors benefit from free trade arrangements with the United States, Canada, and the European Union. A trade agreement signed with Russia grants a reciprocal most favored nation treatment for Russian products in the Palestinian market and vice versa. Both Egypt and Jordan have signed trade agreements stating bilateral duty

free status and reduced duties on certain products, while Saudi Arabia has granted some Palestinian products preferential treatment. The Interim Free Trade Agreement with Turkey grants duty-free treatment to industrial products. The PNA also concluded a free trade agreement with Mercosur countries (Brazil, Argentina, Uruguay and Paraguay) (PIEFZA, 2018).

- **Investor Services**

PIEFZA established the following divisions in each industrial estate under its authority to facilitate the investor procedure to invest in the industrial estates:

- 1- One Stop Service (OSS) center**

OSS provides comprehensive support to investors and tenants in the industrial estates under PIEFZA's authority. OSS acts as a bridge between the tenants to agents, organizations and authorities to help tenants operate smoothly with hassle-free procedures. OSS strengthens the governmental work to be efficient and transparent (PIEFZA, 2018).

The one-stop service consists of a series of agreements signed between PIEFZA and relevant government ministries and public institutions to offer streamlined business procedures to companies planning to establish operations in the industrial estates.

Once application forms are submitted, PIEFZA will coordinate all permits, licenses and official registrations, which are needed to start

operation, with all relevant government ministries and institutions within six weeks (PIEFZA, 2018).

OSS offers the investors in the industrial estates supports in the following procedures:

- ✓ Business registration (including tax registration)
- ✓ Construction license
- ✓ Operation license
- ✓ Trade license
- ✓ Registration with Chambers of Commerce
- ✓ Certificate of origin
- ✓ Utilities service registration
- ✓ Tax incentive application

## **2- Business Development Service (BDS) Center**

Business Development Service (BDS) is a promotion team aiming to provide business development services to the investors in the industrial estates. PIEFZA BDS team vision is “to provide world standard, cutting edge service by working together with tenant’s side by side enabling them to reach the global level”. BDS center contributes to sustainable economic growth and development of Palestine. They are achieving that by providing

various business developing services such as practical technology information, marketing support, training programs, business matching service, and support obtaining international certificates that are demanded by tenants.

In order to support the business development for the investors, PIEFZA states that BDS's team is ready to provide training information, marketing information, and international assistance projects information (PIEFZA, 2018).

#### **4.4 Conclusions**

After 20 year of launching the MOPIC plan for the West Bank and Gaza strip, it is obvious that there is deviation between what was planned and the existing industrial estates. From the 10 proposed industrial estates in the West Bank to be constructed by 2015, just three were actually constructed, while the fourth is under construction. Similarly, from the proposed industrial estates in Gaza Strip, only one was constructed. There are also deviations in the industrial estates locations from the original proposed locations in the plan. The next chapter presents deep analysis for those industrial estates.

**Chapter Five**

**Strategic Analysis for the  
Palestinian Industrial Estates**

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### **Strategic Analysis for the Palestinian Industrial Estates**

#### **5.1 Introduction**

Planning in Palestine is a difficult challenge, due to occupation and uncertainties. This make it difficult but at the same time necessary to plan.

This chapter includes the strategic analysis for the industrial estates in Palestine considering the two cases studies, which include JAIP and BIE. Choosing JAIP and BIE to be the case studies for this research was based on the fact that those two industrial estates are the only estates operating in the West Bank currently. Moreover, strategic analysis is conducted for the industrial estates on the national level.

The analysis is conducted based on reviewing related literatures as well as the outcome of the interviews with PIEFZA, the Project Director of JAIP, the Project Director of BIE, and a sample of factories owners in both industrial estates. In addition to experts in the local and international economics and development. Based on the conducted SWOT analysis, the key priority issues are identified. This will facilitate establishing the vision, the mission, the goals, and finally the strategies needed to develop the industrial estates in Palestine.

#### **5.2 Sectoral Diagnosis and Analysis**

In order to provide a better understanding of the current situation of the Palestinian industrial estates, Strength, Weaknesses,

Opportunities, and Threats (SWOT) Analysis is undertaken. SWOT Analysis is one of the most used strategic planning tools to evaluate the Strengths, Weakness, Opportunities and Threats (SWOT) for any sectors, enterprises or organizations.

Strengths is defined as the internal attributes of the organization that are useful to the achievement of the goals. Weaknesses are the internal attributes of the organization that are harmful to the achievement of the goals. Opportunities are the external conditions that are helpful to the achievement of the objectives, while the threats are the external conditions that are harmful to the achievement of the objectives (Hay and Castilla, 2006).

The strengths, weaknesses, opportunities and threats facing the industrial estates in Palestine based on the two study areas, are categorized under six domains as follows:

- Infrastructures and availability of needed utilities
- Common facilities and structures
- Industries and their characteristics
- Natural and environmental setting
- Demographics and employment
- Institutional settings.

Moreover, an overall assessment on the national level is provided.

### **5.2.1 Infrastructure and Availability of Needed Utilities**

After studying the current infrastructure and utilities situation in the case studies, SWOT analysis is applied and the strengths, weaknesses, opportunities and threats facing the industrial estates in this domain is illustrated below, while a summary of the analysis is tabulated at the end of the section.

- **Strengths**

1. The availability of a robust modern network of internal roads that connect the industrial facilities together.
2. The availability of well developed access roads that connect the industrial estates with the network of external roads.
3. Availability of organized transportation of workers from the industrial estates to the center of Bethlehem City to facilitate the movement of manpower.
4. The existence of new modern water networks.
5. The availability of a treatment plant in each of the industrial estates studies for the wastewater resulting from the industrial factories.
6. The existence of a new electricity network in JAIP which can bear high voltage of electricity.
7. In JAIP, solid waste collection is the responsibility of the developer not the municipality which makes this service better.

8. The existence of high quality telecommunication service, which will facilitate the telecommunication and data transfer.
9. The existence of strong security system in JAIP.

- **Weaknesses**

1. The absence of enough parking spaces for the workers in the master plans of the industrial estates.
2. In BIE, The electricity network does not bear the high voltage demand, which cause frequently power disconnections.
3. Lack of proper security system in BIE.
4. The absence of outside wall surrounding BIE, on the other hand, this wall is existing in JAIP.

- **Opportunities**

1. Transport time from the industrial estates to Jerusalem, Al-Karamah Border Crossing and Ashdod Port is reasonable with easy access. This will facilitate and reduce the cost of products transportation to Jordan and to other countries, as well as transportation of raw materials from Jordan or other countries to the industrial estates.
2. The industrial estates locations are close to the external networks of roads that connect the Palestinian cities with each other. This will facilitate the movement of products, raw materials, and the manpower to and from the industrial estates.

3. The cost of operational licenses and electricity subscription are less in the industrial estate than in other areas.
4. The existence of public transportation service connecting BIE with Bethlehem City.

- **Threats**

1. Scarcity of water in Jericho City, which results in not providing the industrial park with the required amount of water. On the other hand, the Israeli occupation authorities do not agree on digging a deep well to extract clean water.
2. Scarcity of electricity in Jericho City, which results in not providing JAIP with the required amount of electricity. On the other hand, Jerusalem District Electricity Company (JDECo), which is responsible of providing electricity to Jericho City, is not able to increase the city share of electricity as the Israeli occupation authorities are refusing to increase the electricity amount provided to the company.
3. In BIE, poor solid waste collection services by the joint services council.
4. Currently, there is no public transportation connecting JAIP with Jericho City.

Table 5.1 below summarizes the SWOT analysis for the infrastructure and availability of needed utilities domain.

**Table (5.1): SWOT analysis for infrastructure and availability of needed utilities domain**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Strong modern network of internal roads.</li> <li>• Well developed access roads that connect the industrial estates with the network of external roads.</li> <li>• Transportation of workers from the industrial estates to Bethlehem City center are available.</li> <li>• The existence of new modern water networks.</li> <li>• The availability of waste water treatment plants.</li> <li>• The existence of a new electricity network in JAIP.</li> <li>• In JAIP, Solid waste collection is the responsibility of the developer which makes this service better.</li> <li>• The existence of high quality telecommunication service.</li> <li>• The existence of a strong security system in JAIP.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of enough parking spaces for the workers.</li> <li>• In BIE, the electricity network does not bear the high voltage.</li> <li>• Lack of proper security system in BIE.</li> <li>• The absence of outside wall surrounding BIE.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Transport time from the industrial estates to Jerusalem, Al-Karamah Border Crossing and Ashdod Port is reasonable with easy access.</li> <li>• The industrial estates locations are close to the external roads networks.</li> <li>• The cost of operating licenses and electricity subscription are less in the industrial estate than in other areas.</li> <li>• The existence of public transportation service connecting BIE with Bethlehem City.</li> </ul>	<ul style="list-style-type: none"> <li>• Scarcity of water in Jericho City, which results in not providing JAIP with the required amount of water.</li> <li>• Scarcity of electricity in Jericho City, which results in not providing JAIP with the required amount of electricity.</li> <li>• Poor solid waste collection services in BIE.</li> <li>• There is no public transportation service connecting JAIP with Jericho City.</li> </ul>

### **5.2.2 Common Facilities and Structures**

After studying the current common facilities and structures available in the case studies, SWOT analysis is applied and the results are illustrated below, while a summary of the analysis is also tabulated at the end of the section.

- **Strengths**

1. JAIP plan considered providing labor housing in its second phase for the manpower living outside of Jericho City. This will facilitate their works in the industrial park without the needs of daily transportation to their areas of residence. It is to be noted that since most of the workers in BIE are residential of Bethlehem area, then BIE will be no need for labor housing in the industrial estate.
2. JAIP master plan considered providing all the services necessary to facilitate the work of the investors and their employee in its second phase, from a bank to a supermarket as well as a kindergarden and an insurance office. Similarly, BIE contains a bank and there is a plan to have a kindergarden in its second phase.
3. The existence an industrial gallery in the administration building of JAIP to show the products produced by each factory.

- **Weaknesses**

1. Despite the high rent prices in the industrial estates, it does not include the cost of services provided.

2. In JAIP, services such as a supermarket and a kindergarden which are supposed to be in the project are not constructed yet because the developer is not gaining enough profit to construct them. On the other hand, most daily services needed by the investors to facilitate their work in BIE are not available such as insurance office, a supermarket or a restaurant.
3. In JAIP, there is no enough space between some factories; in fact, some plants are adjacent to their neighbors. This resulted in noise transfer from the factory to its neighbors.

- **Opportunities**

1. The existence of the industrial estates locations close to the nearby centers of the cities, which makes it easy to take advantage of the services that are needed by the factories but yet not provided in the industrial estates.
2. The availability of more than seven hangers in JAIP ready to be utilized by new investors.

- **Threats**

1. Full operation of phase one of JAIP is not happening in the nearby future, it was expected to take four years to fully operate phase one of the project, but after five years there are 30% of the lots are not rented.
2. Lack of enough funding to complete the planned next phases common facilities.

Table 5.2 summarizes the SWOT analysis for the common facilities and structures domain.

**Table (5.2): SWOT analysis for the common facilities and structures domain**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• JAIP plan considered building labor housing for the manpower living outside of Jericho City.</li> <li>• JAIP plan considered providing all the services necessary to facilitate the work of the investors and their employee in its second phase. Similarly, BIE contains a bank and there is a plan to have a kinder garden.</li> <li>• The existence of an industrial gallery in the administration building of JAIP. .</li> </ul>	<ul style="list-style-type: none"> <li>• Despite the high rent price in the industrial estates, it does not include the cost of services provided.</li> <li>• The developer is not providing the services facilities in JAIP as agreed.</li> <li>• In JAIP, there is no enough space between some factories.</li> <li>• In BIE, most daily services facilities are not available.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• The existence of the industrial estates locations close to the centers of the cities in which they are located.</li> <li>• The availability of more than 7 hangers in JAIP.</li> </ul>	<ul style="list-style-type: none"> <li>• Full operation of phase one of JAIP is not happening in the nearby future.</li> <li>• Lack of enough funding to complete the planned next phases common facilities.</li> </ul>

### 5.2.3 Industries and their Characteristics

The SWOT analysis for the domain of industries and their related characteristic is conducted and presented below. In addition, a summary of the analysis is tabulated at the end of the section.

- **Strengths**

1. JAIP nature of industries is generally consistence with the agricultural nature of the governorate.

2. JAIP administration is supportive to new creative business technology and industries.
3. BIE is opened to all kind of industries which opens the door for many factories to join it.

- **Weaknesses**

1. The poor incentives which the BIE investors are generated on the industrial equipment compared with JAIP. This includes, for example, the training courses held for JAIP investors and the high price of utilities which are equal to the prices paid by the factories outside the industrial estate, while on JAIP, utilities prices are less than the prices paid by factories in other locations of Jericho City.
2. JAIP investors have a discount up to 50% on the industrial equipment regardless of their manufacture country but the 50% discount on industrial equipment for the BIE investors is restricted on the equipment imported from France.

- **Opportunities**

1. The existence of 50% tax discount on importing equipment for the industrial uses in the industrial estates.
2. JAIP offers the investors in it a 50% discount up to 500,000 USD from building materials and factories equipment. Similarly, In BIE, there is a 50% discount on the equipment and machines imported from France.

3. Japanese experts come regularly to observe the development of JAIP, and conduct training courses to all three parties (PIEFZA team, the developer, and the investors).

- **Threats**

1. Lack of investors in the food industries, which resulted in opening JAIP to other kind of industries such as rubber and plastic industries.
2. The Israeli occupation authorities are putting barriers on the movement of trucks uploaded with the industrial estates products on the Israeli checking points to Jerusalem.
3. The Israeli occupation authorities put barriers on the importing of equipment, production lines and the entry of the equipment and machines experts who are needed to install and operate the machines.
4. The Israeli occupation authorities are not allowing the Arab and Palestinian investors who live outside Palestine to enter and invest in the industrial estates.

Table 5.3 below summarizes the SWOT analysis for the domain of industries and their characteristics.

**Table (5.3): SWOT analysis for the industries and their characteristics domain**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• JAIP nature of industries is generally consistence with the agricultural nature of the governorate.</li> <li>• JAIP administration is very supportive to new creative business technology and industries.</li> <li>• BIE is opened to all kind of industries.</li> </ul>	<ul style="list-style-type: none"> <li>• The poor incentives which the BIE investors are generated on the industrial equipment compared with JAIP.</li> <li>• JAIP investors have a discount up to 50% on the industrial equipment regardless of their manufacture country but the 50% discount on industrial equipment for the BIE investors is restricted on the equipment imported from France.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• There is 50% tax discount on importing equipment for the industrial use in the industrial statutes.</li> <li>• In BIE, there are a 50% discount on the equipment imported from France. Similarly, there are 50% discount on factories equipment in JAIP.</li> <li>• Japanese experts come regularly to observe the development of JAIP, and conduct training courses.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of investors in the food industries in JAIP.</li> <li>• The Israeli occupation authorities are putting barriers on the movement of the industrial estates products to Jerusalem.</li> <li>• The Israeli occupation authorities put barriers on the importing of equipment.</li> <li>• The Israeli occupation authorities are not allowing the Arab and Palestinian investors who live outside Palestine to enter.</li> </ul>

#### 5.2.4 Natural and Environmental Settings

SWOT analysis for the natural and environmental settings domain is presented below, while a summary of the analysis also is tabulated at the end of the section.

- **Strengths**

1. The existence of regulations requiring the factories to prepare and implement a plan for managing the environmental aspects, including the pollution resulting from their plants.

2. Wastewater resulting from the factories must follow certain specifications by the industrial park regulations, and if not the factory should treat it till it matches the set of specifications.
3. There is a cooperation future plan between PIEFZA, JAIP Company and the Joints Services Council to separate the solid waste resulting from the factories in JAIP to organic waste and inorganic waste.
4. There is a solar power plant generating electricity in JAIP.
5. JAIP location is relatively far from the residential areas and agriculture areas. This will reduce the effect of any type of pollution resulted from the industrial park.
6. Most of the industries in JAIP are related to the food industry, which make the park in harmony with the agriculture nature of Jericho Governorate, taking advantage of the agricultural lands that are available in Jericho Governorate and the Jordan Valley region.

- **Weaknesses**

1. Lack of green areas in the industrial estates, despite that the industrial estates plans considered providing green areas, but due to the continuous construction carried out in the industrial estates locations, it make it difficult to maintain those areas.
2. The absence of green belts of trees surrounding the industrial estates. This results in an increase in the noise and air pollution affecting the surrounding areas.

3. There is no plan for zoning or clustering the factories according to their products nature in the industrial estates. This will increase the effect of any kind of pollution resulted from the factories on it neighbors.
4. There is a lot of dust and noise produced because the industrial estates are currently under construction.
5. BIE is opened to all kind of industries, regardless of the impact some factories output could have on the other factories while recently in JAIP and due to the lack of agro- industries, nonagricultural industries are allowed to invest their.
6. BIE location is close to residential areas; which resulted in a lot of problems and complaints from the people who live beside. The absence of outside wall surrounding the industrial estate also increased the problem.

- **Opportunities**

1. The sun in Jericho city is bright most days of the year, which will be useful to generate power. Moreover, there is a factory that produces solar panels in JAIP.
2. A good part of the waste resulting by agro-industries usually could be recycled to be use in other industries as raw materials. For example, using the kernel of dates resulting from the date's factories to make coffee or sugar.

- **Threats**

1. The existence of many industrial factories spreading randomly in the cities of Palestine.
2. Jericho weather is very hot and dusty. This weather does not encourage the investors to choose JAIP as a location for their businesses because of the huge cost they will have on the cooling and air conditioning systems.
3. The absence of active social environment surrounding JAIP location does not encourage the investors to start their businesses in it.

Table 5.4 summarizes the analysis for natural and environmental settings domain.

**Table (5.4): SWOT analysis for natural and environmental settings domain**

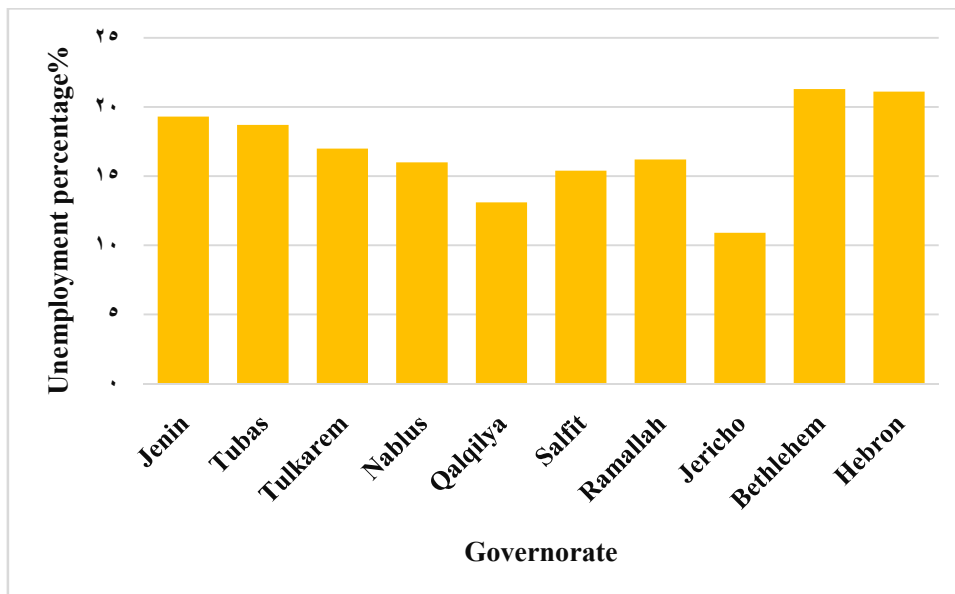
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• The existence of regulations requiring the factories to prepare and implement a plan for managing the environmental aspects.</li> <li>• Waste water resulting from the factories must follow certain specifications.</li> <li>• There is a future plan in JAIP to separate the solid waste resulting from the factories to organic waste and inorganic waste.</li> <li>• There is a solar power plant generating electricity in JAIP.</li> <li>• JAIP location is relatively far from the residential areas and agriculture areas.</li> <li>• The food related industries existing in JAIP make the park in harmony with the agriculture nature of Jericho Governorate</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of green areas in the industrial estates.</li> <li>• The absence of green belts of trees surrounding the industrial estates.</li> <li>• There is no plan for zoning or clustering the factories according to their products nature in the industrial estates.</li> <li>• Because the industrial estates are currently under construction, that resulted in a lot of dust and noise.</li> <li>• BIE is opened to all kind of industries, regardless of the impact some factories output could have on the other factories.</li> <li>• BIE location is close to residential areas.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• The sun in Jericho city is bright most days of the year, which will be useful to generate power and the existence a factory that produces solar panels.</li> <li>• A good part of the waste resulting by agro-industries usually could be recycled to be use in other industries as raw materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Jericho weather is very hot and dusty. This weather does not encourage the investors to choose JAIP as a location for their businesses.</li> <li>• The absence of active social or natural environment surrounding JAIP location.</li> <li>• The existence of a lot of industrial factories spreading randomly in the cities of Palestine.</li> </ul>

### 5.2.5 Demographics and Employment

The SWOT analysis for the demographics and employment domain is presented below, while a summary of the analysis is also tabulated at the end of the section.

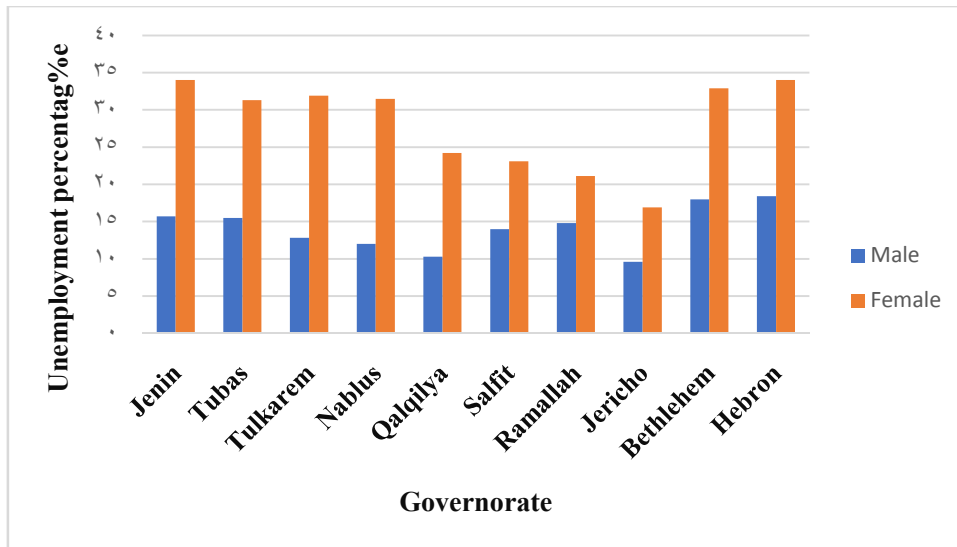
- **Strengths**

1. JAIP is expected to provide 5,000 direct and indirect employment opportunities. This covers the unemployment numbers in Jericho and Jordan Valley area in the year 2016, which is approximately around 5,800 unemployed person, as shown in Figure 5.1.
1. The unemployment rate for females in Jericho Governorate in the year 2016 was approximately 16.9% from the Jericho Governorate population as shown in Figure 5.2, which is much higher of than male unemployment rate 9.6% of Jericho Governorate population. The agro-industries in JAIP create an appropriate business environment for the Palestinian women, which means that the female unemployment rate is expected to decrease after the full operation of JAIP.



**Figure (5.1): Unemployment rates in the West Bank governorates (above 15 year) in 2016**

Source: Palestinian Central Bureau of Statistics, 2017



**Figure (5.2): Unemployment rates for males and females in the West Bank governorates (above 15 year) in 2016**

Source: Palestinian Central Bureau of Statistics, 2017

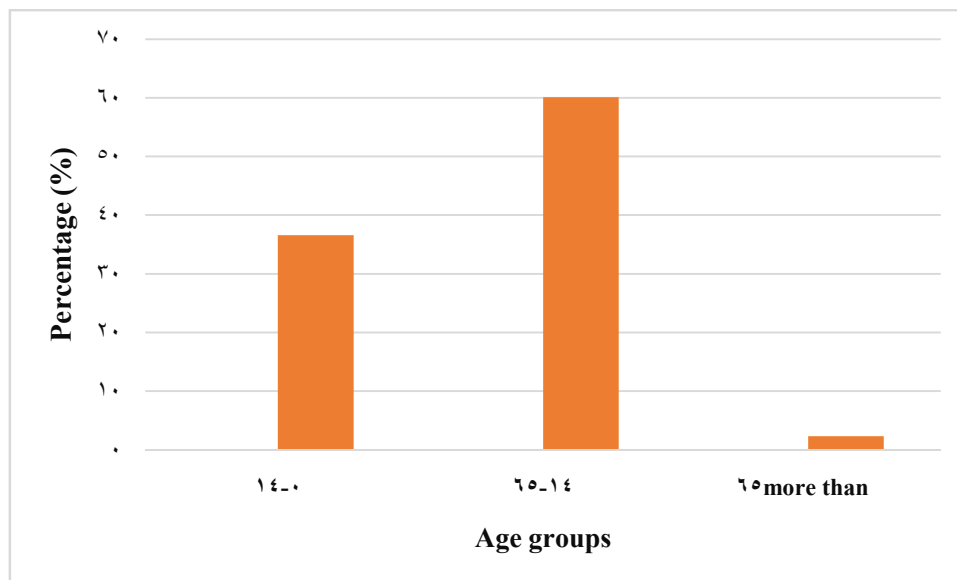
- **Weaknesses**

1. BIE has provided 544 job opportunities in its first phase and is expected to provide another 1,500 job opportunities when it will be accomplished. The unemployment rate in Bethlehem Governorate in the year 2016 was approximately about 21.3% which is about 47,000 unemployed person as shown in Figure 5.1. This means that BIE size is not large enough to cover the unemployment percentage in Bethlehem Governorate.
2. The unemployment rate for females in Bethlehem Governorate in the year 2016 was approximately 32.9% of Bethlehem area population as shown in Figure 5.2. This rate also is much higher than the male unemployment rate that approximately equal 18% of Bethlehem population. Most of BIE industries are not usually occupied by women laborers. This means that without encouraging programs to attract

women to these types of industries, BIE will not much affect the women unemployment rate in Bethlehem Governorate.

- **Opportunities**

1. The Palestinian society is a young society. The proportion of the people in the age group (14-65 year) is about 60.1% as shown in Figure 5.3. This means that the Palestinian industrial estates will not have shortage in human capital.



**Figure (5.3): Age groups percentages for the Palestinian population in 2016**

Source: Palestinian Central Bureau of Statistics, 2017

2. Jericho population is growing and increasing over the years as shown in Table 5.5, which increase the potential of satisfying the needed number of laborers in JAIP.
3. BIE's proximity to large population governorates with potential to satisfy the needed number of laborers for BIE.

Table (5.5): Population in the West Bank Governorates (2012-2016)

Region /Governorate	Year									
	2016		2015		2014		2013		2012	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
<b>Palestine</b>	<b>100</b>	<b>4,816,503</b>	<b>100</b>	<b>4,682,467</b>	<b>100</b>	<b>4,550,368</b>	<b>100</b>	<b>4,420,549</b>	<b>100</b>	<b>4,293,313</b>
<b>West Bank</b>	<b>60.9</b>	<b>2,935,368</b>	<b>61.1</b>	<b>2,862,485</b>	<b>61.3</b>	<b>2,790,331</b>	<b>61.5</b>	<b>2,719,112</b>	<b>61.7</b>	<b>2,649,020</b>
Jenin	6.6	318,958	6.6	311,231	6.7	303,565	6.7	295,985	6.7	288,511
Tubas	1.4	66,854	1.4	64,719	1.4	62,627	1.4	60,582	1.4	58,586
Tulkarm	3.8	185,314	3.9	182,053	3.9	178,774	4.0	175,494	4.0	172,224
Nablus	8.1	389,329	8.1	380,961	8.2	372,621	8.2	364,333	8.4	356,129
Qalqilya	2.4	113,574	2.4	110,800	2.4	108,049	2.4	105,330	2.4	102,649
Salfit	1.5	72,279	1.5	70,727	1.5	69,179	1.5	67,641	1.5	66,119
Ramallah & Al-Bireh	7.4	357,969	7.4	348,110	7.4	338,383	7.4	328,811	7.4	319,418
Jericho & A. Aghwar	1.1	53,562	1.1	52,154	1.1	50,762	1.1	49,390	1.1	48,041
Jerusalem	8.9	426,533	9.0	419,108	9.1	411,640	9.2	404,165	9.2	396,710
Bethlehem	4.6	221,802	4.6	216,114	4.6	210,484	4.6	204,929	4.6	199,463
Hebron	15.1	729,194	15.1	706,508	15.0	684,247	15.0	662,452	15.0	641,170
<b>Gaza Strip</b>	<b>39.1</b>	<b>1,881,135</b>	<b>38.9</b>	<b>1,819,982</b>	<b>38.7</b>	<b>1,760,037</b>	<b>38.5</b>	<b>1,701,437</b>	<b>38.3</b>	<b>1,644,293</b>

Source: Palestinian Central Bureau of Statistics, 2017

4. Number of laborers and technicians in Bethlehem and surrounding areas are sufficient to fully operate BIE.

- **Threats**

1. The shortage of technicians and professional laborers in Palestine in general, and in Jericho area in particular. This means that in case of fully operating all phases of JAIP, there is a possibility of not finding the needed number of well qualified laborers and technicians needed to operate the industrial facilities in JAIP.

Table 5.6 summarizes the analysis for demographic and employment domain.

**Table (5.6): SWOT analysis for demographic and employment domain.**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• JAIP is expected to provide high employment.</li> <li>• The agro industries in JAIP creates an appropriate business environment for the Palestinian women.</li> </ul>	<ul style="list-style-type: none"> <li>• BIE size is not large enough to cover the unemployment percentage in Bethlehem Governorate.</li> <li>• Most of BIE industries are not usually occupied by women laborers.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• The Palestinian society is a young society.</li> <li>• Jericho population is growing and increasing which increase the potential of satisfying the needed number of laborers in JAIP.</li> <li>• BIE's proximity to large population governorates with potential to satisfy the needed number of laborers for BIE.</li> <li>• Number of laborers and technicians in Bethlehem area are sufficient to fully operate the industrial estate.</li> </ul>	<ul style="list-style-type: none"> <li>• The shortage of technicians and professional laborers in Palestine in general, and in Jericho area in particular.</li> </ul>

### **5.2.6 Institutional Settings**

After studying the current institutional settings, SWOT analysis is applied and the results are illustrated below, while a summary of the analysis is also tabulated at the end of the section.

- **Strengths**

1. The existence of an OSS unit to provide comprehensive support to investors on licensing and legal process at a much lower cost than outside the industrial estate.
2. The existence of a BDS unit to provide related services to the investors in marketing, training and other fields.

- **Weaknesses**

1. Lack of proper regulations to preserve the rights of all parties resulted in disputes between the developer and the investors in the industrial estates. For example, some investors do not pay rent for the developer which affects his revenue from the project while the developer refuses to provide all of the services agreed upon in the contract because he is not gaining the expected profit from the project. On the other hand, in BIE, many factories started in operation without license because of their disagreement with the developer on the rent and other conditions.
2. PIEFZA's decisions need the approval of the Ministry of National Economy, which results in difficulties to make any change.

- **Opportunities**

1. The presence of scientific researches from the universities and other organizations regarding the industrial sector and industrial estates that PIEFZA can benefit from.

- **Threats**

1. The industrial estates lands are under the PIEFZA or the municipal authorities, which makes solving any legal problem facing the industrial facilities harder to resolve.

Table 5.7 summarizes the SWOT analysis for the institutional settings domain.

**Table (5.7): SWOT analysis for the institutional settings domain**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• The existence of an OSS unit to provide comprehensive support to investors.</li> <li>• The existence of a BDS unit to provide related services to the investors.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of proper regulations to preserve the rights of all parties in the industrial estates.</li> <li>• PIEFZA's decisions need the approval of the Ministry of National Economy, which results in difficulties to make any change.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• The presence of scientific researches from the universities and other organizations regarding the industrial sector and industrial estates that PIEFZA can benefit from.</li> </ul>	<ul style="list-style-type: none"> <li>• The industrial estates lands are under the PIEFZA or the municipal authorities, which makes solving any legal problem facing the industrial facilities harder to resolve.</li> </ul>

### **5.3 SWOT Analysis for the Palestinian National Level**

An analysis of the strengths, weaknesses, opportunities and threats facing the industrial estates in Palestine on the national level is presented

below, while a summary of the analysis is tabulated at the end of the section.

- **Strengths**

1. The industrial sector contribution to the GDP is increasing. Industry activities contributed about 13% to GDP during the year 2017. The value added for industry activities in 2017 totaled 1,777.8 million USD million, showing an increase of 2.2% compared with 2016 (PCBS, 2017).
2. The diversity of industries types in Palestine, where the industries in Palestine (considering the PCBS classification), vary from mining and quarrying, manufacturing, electricity, gas, steam and air conditioning supplies, water supplies, waste management supplies and remediation activities.
3. The continuous participation in the international conferences and exhibitions. This will attract the regional and international investors and donors to invest in Palestine.
4. The regional plans adopted by MOPIC in 1998, had identified sites in the West Bank and Gaza Strip to construct industrial estates. However, after twenty years, these plans were still adopted without updating.
5. The net exports in goods and services is increasing, it was 2,765 million USD in the year 2014, it raised in the year 2016 to become 3,127.2 million USD product and service (PCBS, 2017).

- **Weaknesses**

1. The absence of proper regulations dedicated for the industrial estates, such as regulations to have preferential tariffs for the utilities in the industrial estates and regulations to reduce or cancel the taxes on the equipment and productions line imported from other countries for the industrial uses of the industrial estates.
2. Most of the proposed industrial estates located in “Area C” for the West Bank regional plan in 1998 were not actually established or not implemented in the proposed location. The Israeli occupation authorities did not agree on building, for example, the industrial estates in Hebron, Qalqilya, and Tulkarm.
3. The absence of regulations that prevent the building and the existence of industrial facilities outside the industrial estates areas.

In a survey conducted by Palestine Economic Policy Research Institute (MAS), most of the industrial facilities owners are refusing to move their industries to the industrial estates areas because of the following reasons which are sorted from the most to the least important (MAS, 2013):

- ✓ The low rent in the current locations.
- ✓ The high cost of moving the factories to the industrial estates areas in addition to the cost of losing the current preparation of the productions lines.

- ✓ The current locations are closer to the centers of the cities in which the factories are located.
  - ✓ The proximity of the current locations to the laborers residences.
  - ✓ The availability of transportation to their current locations for the workers and to transport the products to the market.
  - ✓ Their clients know the current location.
4. The absence of a national strategic plan regarding the construction of industrial estates. The strategic plan should include locations for the future industrial estates, their sizes, their industrial nature, all the infrastructure, utilities, and common services facilities that should be provided.
  5. The donor and the amount of the financial support determine the settings of the new industrial estate. For example, the size of the industrial estates is determined based on the donor financial support not on studies that depend on the market or employment needs in the area.
  6. Lack of optimal exploitation of natural and human resources when planning for an industrial estate. For example, choosing the location of an agricultural industrial park in Jericho City might not have been appropriate. Jericho Governorates includes 9% of the planted areas in the West Bank while Jenin Governorate includes 20.7%. Jenin Governorate is considered as a major source of agricultural products, as it includes 18% of the fruits, 19% of the vegetables, and 29% field crops in the West Bank. In addition to that, more than 25% of Jenin

laborers are working in the agricultural activities; while the other laborers do not have the industrial experience that allow them to work in the industrial activities. As a result of that, it is expected to have reverse migration from the governorate to other governorates that have agricultural related activities (PCBS, 2017).

7. Lack of governmental regulations to protect the local products resulted in a strong competition facing the Palestinian industry from the goods and products imported from other countries.
8. Constructing industrial estates in agricultural lands, for example, the location that have been chosen for Jenin Industrial Free Zone (JIFZ) was Al-Jalamah, which is located to the north of Jenin City. The village is an extension of Marj Ebin Amer area, which is famous of its agricultural production. Constructing an industrial estate in this area could negatively affect the surrounding agricultural environment.

- **Opportunities**

1. The current trend of the industrial estates projects have the full support and attention from the PNA, and is expected to prevail in the future.
2. The PNA increasing interest in the projects that support the national economy.
3. The national agenda for the years 2017-2022 includes suggestions to build new industrial estates in locations such as Hebron, Tulkarm and Qalqilya Governorates.

4. The industrial investors in Palestine benefit from free trade arrangements between the PNA and other countries such as the United States, Russia, Turkey and Saudi Arabia.
5. The Palestinian governorates that have the highest numbers of industrial facilities in their regions still do not have industrial estates, which open the opportunities for constructing new industrial estates in them. Table 5.8 shows the number of operating industrial establishments for each industry in all the West Bank governorates.

- **Threats**

1. The prolonged policy of the Israeli occupation authorities of putting obstacles on the industrial estates location choice. For example, PIEFZA requested from the Israeli side to transfer 1,400 dunum in Bani Naeam area in Hebron from “C Areas” to “A Areas” to build an industrial estate, but the Israeli side is refusing so far.
2. The quantity of imported products into Palestine exceeds the quantity of exported products. In the year 2016, the quantity of exported products was 1,405.5 million USD, while the quantity of imported products was 4,312.7 million USD (PCBS, 2017).
3. The unstable political status in Palestine is not attractive for investment, especially the Arab and foreign investments.
4. The financial support granted to Palestine from the donor community could continue to fluctuate.

**Table (5.8): The number of operating industrial establishments for each industry in all the West Bank governorates**

No	Economic activity	Hebron	Bethlehem	Jericho and Al-Aghwar	Ramallah	Jenin
1	Mining and quarrying	188	20	0	8	11
2	Manufacture of food and beverages products	354	111	19	242	313
3	Manufacture of tobacco products	0	0	0	3	13
4	Manufacture of wearing apparel and textiles	220	108	5	145	186
5	Manufacture of leather and related products	343	2	0	2	1
6	Manufacture of wood	111	193	10	26	26
7	Manufacture of paper and paper products	72	18	3	60	31
8	Manufacture of chemical products	20	6	0	16	32
9	Manufacture of pharmaceutical preparations	3	1	0	6	0
10	Manufacture of rubber and plastics products	79	9	2	20	11
11	Manufacture of other non-metallic mineral products	491	256	10	170	197
12	Manufacture of metals	640	205	41	377	320
13	Manufacture of computer, electronic and optical products	4	0	0	3	0
14	Manufacture of electrical equipment	5	1	0	5	1
15	Manufacture of machinery and equipment	7	5	0	7	4
16	Manufacture of motor vehicles, trailers and transport equipment	0	0	0	2	0
17	Manufacture of furniture	484	187	12	340	177
18	Other manufacturing	56	15	1	23	8
19	Repair and installation of machinery and equipment	94	36	0	26	16
20	Electricity, gas, steam and air conditioning supply	7	3	1	4	8
21	Water and Sewerage supplies remediation activities	15	2	2	7	51
	<b>Total</b>	3308	1178	106	1492	175

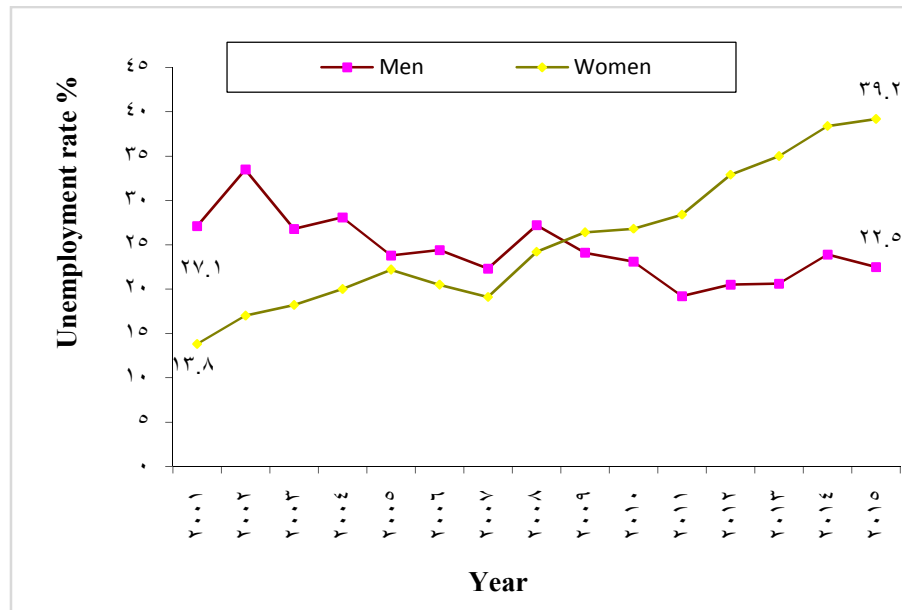
Source: Palestinian Central Bureau of Statistics, 2012

**Table (5.8) (cont): The number of operating industrial establishments for each industry in all the West Bank governorates.**

No	Economic activity	Tubas	Tulkarm	Nablus	Qalqiya	Salfit
1	Mining and quarrying	0	5	54	0	2
2	Manufacture of food and beverages products	45	218	474	109	70
3	Manufacture of tobacco products	0	0	1	0	0
4	Manufacture of textiles	7	31	31	4	2
5	Manufacture of wearing apparel	15	130	571	230	160
6	Manufacture of leather and related products	0	2	38	3	0
7	Manufacture of wood and furniture	21	124	72	13	3
8	Manufacture of paper and paper products	2	17	74	14	6
9	Manufacture of chemical products	0	5	23	7	2
10	Manufacture of pharmaceutical preparations	0	0	3	0	0
11	Manufacture of rubber and plastics products	0	7	37	1	0
12	Manufacture of other non-metallic mineral products	18	59	225	70	65
13	Manufacture of metals	57	214	504	141	91
14	Manufacture of computer, electronic and optical products	0	1	2	0	0
15	Manufacture of electrical equipment	0	0	3	0	0
16	Manufacture of machinery and equipment	0	1	3	0	0
17	Manufacture of motor vehicles, trailers and transport equipment	0	1	0	0	0
18	Other manufacturing	0	18	35	7	0
19	Repair and installation of machinery and equipment	2	12	38	8	1
20	Electricity, gas, steam and air conditioning supply	1	2	15	0	0
21	Water and Sewerage supplies remediation activities	7	51	9	46	0
	<b>Total</b>	175	898	2530	653	402

Source: Palestinian Central Bureau of Statistics, 2012

5. The gap in unemployment rates among women and men is increasing over the years. The unemployment rate in the West Bank area for the year 2016 was 18.2%, the unemployment rate for the females in the West Bank area was approximately 29.8% as shown in Figure 5.4.



**Figure (5.4): Unemployment rate for women and men who Participated in the laborers force (15 years and above) in Palestine, 2001-2015.**

Source: Palestinian Central Bureau of Statistics, 2016

6. The existence of a high number of university graduates in social sciences in Palestine which are not much required in the industrial sector. On the other hand, the numbers of graduates in professional sciences that are highly required in the industrial sector are much less.

Table 5.9 summarizes the SWOT analysis conducted on the Palestinian national level.

**Table (5.9): SWOT analysis on the Palestinian national level**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• The industrial sector contribution to the GDP is increasing.</li> <li>• The diversity of industries types in Palestine.</li> <li>• The continuous participation in the international conferences and related exhibitions.</li> <li>• The regional plans for the year 1998, selected sites in the West Bank and Gaza Strip to construct industrial estates in.</li> <li>• The net exports in goods and services is increasing.</li> </ul>	<ul style="list-style-type: none"> <li>• The absence of proper regulations dedicated for the industrial estates.</li> <li>• Most of the proposed industrial estates in West Bank regional plan in 1998 were not implemented in the proposed location.</li> <li>• The absence of regulations prevents the building of industrial facilities outside the industrial estates areas.</li> <li>• The absence of a national strategic plan regarding the construction of the industrial estates.</li> <li>• The quantity of imported goods and services into Palestine exceeds the quantity of exported goods and service.</li> <li>• The settings of the industrial estates is determined based on the donor financial support.</li> <li>• Lack of optimal exploitation of natural and human resources when planning for an industrial estate.</li> <li>• Constructing industrial estates in agricultural lands.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• The current trend of the industrial estates projects have the full support and attention from the PNA.</li> <li>• The PNA increasing interest in the projects that support the national economy.</li> <li>• The national agenda for the years 2017-2022 includes suggestions to build new industrial estates.</li> <li>• The industrial investors in Palestine benefit from free trade arrangements between the PNA and other countries.</li> </ul>	<ul style="list-style-type: none"> <li>• The prolonged policy of the Israeli occupation authorities of putting obstacles on the industrial estates location choice.</li> <li>• The unstable political status in Palestine is not attractive for investment.</li> <li>• The financial support granted to Palestine from the donor community could continue to fluctuate.</li> <li>• The gap in unemployment rates among women and men is increasing over the years.</li> <li>• The existence of a high number of university graduates in social science in Palestine compared to professional sciences.</li> </ul>

#### 5.4 Determining the Key Priorities Issues

The SWOT analyses for the two case studies and the strategic analysis of the national level have resulted in a group of strengths, weaknesses, opportunities and threats that face the industrial estates development in Palestine. This analysis has helped in highlighting the key issues and priorities that should be focused on when formulating the strategic framework. Table 5.10 illustrates these key priorities for the analysis domains issues.

**Table (5.10): Key priorities issues for the development of industrial estates in Palestine**

No.	Field	Key issues
1	Infrastructure and utilities	<ol style="list-style-type: none"> <li>1. Shortage in the amount of supplied electricity.</li> <li>2. Shortage in the amount of supplied water.</li> <li>3. The absence of public transportation services.</li> </ol>
2	Common facilities and structures	<ol style="list-style-type: none"> <li>1. The high rent price in the industrial estates.</li> <li>2. Most daily services facilities are not available.</li> </ol>
3	Industries and their characteristics	<ol style="list-style-type: none"> <li>1. Lack of proper regulations to preserve the rights of all parties in the industrial estates.</li> </ol>
4	Natural and environmental settings	<ol style="list-style-type: none"> <li>1. Lack of green areas and the absence of green belts surrounding the industrial estates.</li> <li>2. There is no plan for zoning or clustering the factories according to their products nature in the industrial estates.</li> </ol>
5	Demographics and employment	<ol style="list-style-type: none"> <li>1. Lack of optimal exploitation of natural and human resources when planning for an industrial estate.</li> </ol>
6	Institutional and Legislative	<ol style="list-style-type: none"> <li>1. The absence of a national strategic plan regarding the construction of industrial estates.</li> <li>2. The absence of regulations prevents the building and the existence of industrial facilities outside the industrial estates areas.</li> <li>3. Lack of optimal exploitation of natural and human resources when planning for an industrial estate.</li> <li>4. Lack of governmental regulations to protect the local products.</li> <li>5. Constructing industrial estates in agricultural lands.</li> </ol>

**Chapter Six**

**Industrial Estates Strategic  
Planning Framework**

## Chapter Six

### Industrial Estates Strategic Planning Framework

#### 6.1 Introduction

The strategic planning process includes three phases: strategy formulation, strategy implementation, and strategy evaluation. In this research, the first phase of the strategic planning process is considered, which include the formulation of the vision and mission, taking into consideration the strengths and weaknesses, as well as the opportunities and threats, resulted from the SWOT analysis process, establishing the goals, generating the strategies, and deciding the strategic actions necessary to achieve these goals.

#### 6.2 Palestinian Industrial Estates Vision Statement

Vision is generally seen as a picture of the future. It is a picture of excellence, something that the organization wants to create in its best possible future (Papulova, 2014). Based on the SWOT analysis outcome for JAIP and BIE case studies, as well as on the Palestinian national level, as presented in the previous chapter, the vision statement of the Palestinian industrial estates is proposed as follows:

**“To be the incubator for all industries in Palestine and increase the contribution of the industrial sector to the Palestinian economy”.**

#### 6.3 Palestinian Industrial Estates Mission Statement

The mission is the second step of the strategic planning process. It should answer the question of “what do we do?” The mission defines the

space in which strategy is created. Unlike the vision that allows determining direction and indicates where the organization wants to get to, the mission defines the space in which the organization will operate (Joachim, 2010). The mission statement of the Palestinian industrial estates is formulated as follows:

**“The Palestinian industrial estates offer the investors an advanced industrial environment through its modern internal and external infrastructure in addition to the financial incentives and the high quality services to any industry that needs a place for its business”.**

#### **6.4 Palestinian Industrial Estates Goals**

In order to achieve the Palestinian industrial estates proposed vision, a set of long-term strategic goals should be followed. These will be the basis for the proposed strategies and action plans that will help in achieving those goals. The strategic goals can be formulated based on the proposed mission and key priorities that resulted from the SWOT analysis. The Palestinian industrial estates strategic goals are proposed to be the following:

1. Provide advanced industrial environment that facilitates the operation of the industrial facilities and helps in the advancement of the industrial sector.
2. Maintain a clean and healthy environment in the industrial estates areas.

3. Enhance the contribution of the industrial sector in the Palestinian national economy.
4. Enhance regulatory environment for the industrial estates.
5. Provide job opportunities to overcome the high percentage of unemployment in Palestine.

## **6.5 Palestinian Industrial Estates Objectives, Strategies and Actions**

**Goal 1: Provide advanced industrial environment that facilitates the operation of the industrial facilities and helps in the advancement of the industrial sector.**

### **Objectives**

In order to achieve this goal, the following objectives can be followed:

- ✓ Provide the basic services to the investors, which are electricity, water, waste management, transportation, and security at reasonable cost.
- ✓ Facilitate the daily tasks for the investors by providing the key services that are frequently used by industrial facilities in the estates.
- ✓ Facilitate the legal process of the investors in the industrial estates.

The following strategies will lead to achieve these objectives:

✓ **Strategy 1: Provide the basic services to the investors at reasonable cost**

Most of the Palestinian communities suffer from shortages in water and electricity in addition to the poor soiled waste collection system. To overcome these basic services problems in the industrial estates, the following actions are proposed:

- **Electricity service:**

- a) Encourage the investors to use energy saving machines and those operated by gas to overcome the electricity shortage problem.
- b) Support using the roofs of the factories to generate part of the electricity needed for their operation using solar cells.
- c) Enhance and upgrade the electricity network to make it bear the high voltage pressure needed to operate the industrial estate factories.
- d) Arrange for periodic maintenance for the electricity network.

- **Water and wastewater service:**

- a) Improve the water supply system by building water tanks and digging deep wells to extract clean water.
- b) Encourage the investors in food industries to do the washing of crops that they are using as a raw material in the areas that do not have water problems.

c) Provide wastewater treatment units in the industrial estates.

- **Solid waste collection service:**

a) Provide sufficient soiled waste containers for each industrial facility.

b) Arrange with the party in charge for daily solid waste collection.

c) Provide waste dump sites specialized for the industrial wastes.

- **Transportation service:**

a) Provide public transportation services from the industrial estates to the centers of the cities in which they are located and vice versa.

b) Provide proper access roads to the proposed sites for the industrial estates.

c) Provide sufficient parking areas for all the industrial estates parties.

- **Security issues:**

a) Build walls to surround the industrial estates from all sides with security arrangement at each entrance.

b) Utilize monitoring security cameras and networks to secure the inner streets and gates of the industrial estates.

c) Assign proper security companies to guard the industrial estates.

✓ **Strategy 2: Providing the key services that are frequently used by industrial facilities in the industrial estates**

This strategy could be achieved through the following actions:

- a) Provide housing for the laborers living far from the industrial estates, preferably on-site housing.
- b) Provide proper services facilities that should be within the industrial estates, which include banks, insurance offices, printing and imaging offices, legal consultancy offices, advertising companies, restaurants, supermarkets, parks, and kindergartens.

✓ **Strategy 3: Facilitate the legal process of the investors in the industrial estates**

To facilitate the legal issues of the investors and guide the relationship between the investors and the developers, the following actions can be done:

- a) Have open communication channels between PIEFZA and the investors to listen to their complaints and suggestions then discuss these with the developer and find the proper solutions.
- b) Develop proper internal regulations to organize the legal relationships between all parties involved in the industrial estates and the relationship between them and the Palestinian government.

## **Goal 2: Maintaining clean and healthy environment in the industrial estates**

- **Objectives**

The pollution resulted from the industrial facilities can be water pollution, soil pollution, air pollution, noise pollution, and visual pollution. To maintain a healthy environment and eliminate the effect of the industrial pollution, the following objectives should be achieved:

- ✓ Maintain healthy environment inside the industrial estates.
- ✓ Provide a healthy environment in the areas surrounding the industrial estates.
- ✓ Take advantage of the natural resources to the maximum possible extent.

To achieve these objectives the following strategies can be followed:

- ✓ **Strategy1: Minimization of the pollution inside the industrial estates**

The following actions can facilitate achieving this strategy:

- a) Prepare zoning plans or update the existing ones to distribute the factories in clusters according to their products nature and their environmental aspects and impacts.
- b) Use sound insulation in the factories that are very close to each other to reduce the noise.

- c) Provide green areas inside the industrial estates.
  - d) Encourage the idea of using the waste outputs of the industries as raw materials for other industries if possible.
- ✓ **Strategy 2: Minimization of the effect of the industrial pollution resulted from the industrial estates on the surrounding areas**

The following actions are proposed to achieve this strategy:

- a) Plant tree belts surrounding the industrial estates to clear the air and reduce the dust.
  - b) Adopt solid waste separation systems to separate the waste that will cause harm to the environment if not properly disposed.
  - c) Adopt wastewater treatment systems to treat the wastewater and clean it from any chemicals that can harm the surrounding soil or water resources.
  - d) Strict monitoring of the pollution levels in the air where each factory should purify the resulted smokes and air from the industrial activities from any air pollutants.
- ✓ **Strategy 3: Taking the ultimate possible advantage of any natural resource that exists in the industrial estate area**

This can be achieved through the following actions:

- a) Use the roofs of the factories to generate part of the electricity needed for their operation using solar cells.

- b) Benefit from any natural water resources that exist in the area such as water springs in the industrial production process.
- c) Encourage investing in the natural resources industries such as the fish industry in Gaza Strip, salt and minerals extraction from the Dead Sea, and stone and marble industries in the mountain areas of the West Bank.

**Goal 3: Enhance the contribution of the industrial sector in the Palestinian national economy**

- **Objectives:**

To increase the contribution of the industrial sectors in the overall Palestinian GDP, the following objectives should be achieved:

- ✓ Enhance the competitiveness and attractiveness of the industrial sector through proper incentives and regulations to attract the foreign and Palestinian investors to invest in Palestine.
- ✓ Increase the utilization of modern technology and support the creative industry- oriented initiatives.
- ✓ Contribute in supporting the Palestinian economy through regulations that favor the Palestinian products compared with the imported products.

The following strategies can lead to achieve these objectives:

✓ **Strategy 1: Enhance the competitiveness and attraction of the industrial sector**

This could be achieved by the following actions:

- a) Promote Palestinian industrial products by holding national and international exhibits to present the products of the industrial estates and increase the Palestinian presence at all international industrial exhibits and related conferences.
- b) Organize programmed group meetings with potential investors, Arabs and Palestinians living outside Palestine to familiarize them with the Palestinian industrial estates.
- c) Hold national and international exhibits to present the products that are produced in the industrial estates.
- d) Design incentive packages to Arab and international investors and organizations to invest in the industrial estates.

✓ **Strategy 2: Increase the utilization of modern technology and support the creative related ideas**

This could be achieved by implementing the following actions:

- a) Support establishing incubators to backup and finance the initiatives and creative projects through cooperation among PIEFZA and the Ministry of Labour with the support of the private sector organizations, the NGOs, and universities, in additions of providing training courses

directed to the investors or the entrepreneurs for any new modern technology.

- b) Increase the interaction and cooperation with the international industrial estates and arrange visits to learn about the advancement of technology they use in their industries.
- c) Hold meetings between the national and international investors with the universities graduates and the entrepreneurs who need to be supported financially to help them to implements their projects.
- ✓ **Strategy 3: Contribute in supporting the Palestinian economy by encouraging Palestinian products compared with the imported products**

This can be done by the following actions:

- a) Devise polices that discourage importing products which have local alternatives and increase the taxes on the imported products that do not have alternatives.
- b) Encourage the investors and provide incentives to invest in industries that produce products needed by the local market.

#### **Goal 4: Enhance the regulatory environment for the industrial estates**

- **Objectives:**

To achieve this goal, the following related objectives are proposed as follows:

- ✓ Formulate laws and regulations dedicated to develop and protect the industrial estates.
- ✓ Formulate laws and regulations to facilitate the transfer of the industrial factories distributed randomly in the cities of Palestine to the industrial estates.

The following strategies are proposed to achieve these objectives:

- ✓ **Strategy 1: Formulate laws and regulations dedicated to develop and protect the industrial estates**

To prepare regulations dedicated to develop and protect the industrial facilities in the industrial estates, specification actions proposed as follows:

- a) Put regulations to have preferential tariffs for electricity, water and solid waste collection in the industrial estates.
  - b) Devise regulations to reduce the licensing cost for the industrial facilities willing to start or move their businesses in the industrial estates.
  - c) Devise regulations to reduce or eliminate the taxes on the equipment and productions line imported from other countries for the industrial use of the industrial estates.
- ✓ **Strategy 2: Formulate laws and regulations to facilitate the transfer of the industrial factories distributed randomly in the cities of Palestine to the industrial estates**

In addition to the encouraging package of regulations mentioned in strategy 1, the following actions can help in achieving this strategy:

- a) Give financial compensation for the investors to compensate them for the costs of moving their facilities to the industrial estates.
- b) Establish regulations that allow to rent the industrial facilities with low prices at the start, then the prices can be gradually increased until it reaches the normal range.

**Goal 5: Provide job opportunities to overcome the high percentage of unemployment in Palestine**

- **Objectives:**

This goal can be achieved through the satisfaction of the following objectives:

- ✓ Provide the required numbers of talented workers and professional technicians needed to operate the industrial estates.
- ✓ Conduct proper planning for the industrial estates.
- ✓ Enhance the role of Palestinian women in the industrial sector.

To achieve these objectives, the following strategies are proposed:

- ✓ **Strategy 1: Increase the numbers of professional technicians in Palestine**

To reach that, the following actions can be done:

- a) Devise a national policy directed to raise awareness of high school's students on the specializations needed in the Palestinian market and to guide and attract them to the vocational branches, within the provided programs in the high schools.
  - b) Support and encourage the students to study in the technical colleges by providing a free or semi-free education in those community colleges.
  - c) Establish business development centers that deliver the needed training courses to graduate well qualified specialists and labor.
  - d) Coordinate the above responsibilities among the key stakeholders such as the Ministry of National Economy represented by PIEFZA, Ministry of Labour, Ministry of Education and Higher Education, in addition to the organization of the private sector, NGOs, universities, and colleges.
- ✓ **Strategy 2: Improve the planning of the industrial estates**

This strategy can be achieved through the following actions:

- a) Choose the proper locations for the proposed industrial estate, where the heavily populated areas and those with the highest unemployment rates should be given the priority to locate the industrial estate in their vicinity. The availability of sufficient area of land suitable for the industrial use must be taken into account also with area for potential future expansion. The industrial estates should be reasonably away from the residential and agricultural areas to protect those areas from the potential pollution resulting from the industrial facilities in the

estates. The industrial estates should also be close to the Palestinian national road network to facilitate the movement of trucks uploaded with industrial estates products.

Based on all of these factors and based on the SWOT analysis done previously in this research, the following additional industrial estates locations are suggested:

1. An industrial estate in Tarqumia in Hebron Governorate, where the size of the estate should be the largest of the industrial estates existing in the West Bank to accommodate many of the industrial facilities in the region which are about 3,308 industrial facility. Table 5.7 in the previous chapter showed that most of the industrial facilities located in Hebron Governorate are specialized in the food industries, metals products industries, nonmetallic mineral products industries, as well as the wood and furniture industries.
2. An industrial estate in Nablus Governorate to attract the industries in Nablus and Salfit Governorates, which are about 2,930 industrial facility together, where the previously considered location close to Beita/Zaatara need to be investigated again. This industrial estate is recommended to specialize in the metals products industries, nonmetallic mineral products industries, wearing apparel and textiles industries as well as the wood and furniture industries.
3. An industrial estate in Ramallah/Al-Bireh/Betounia municipal area to cover the industries in the region, which are about 1,500 industrial

facility. This industrial estate is recommended to specialize in the food industries, the metals products industries, as well as the wood and furniture industries, while it should come after Nablus industrial estate in the size.

4. In addition to the proposed technological industrial estate at the premises of Palestine Technical University-Kadoori in Tulkarm City, industrial estate between Qalqilya Governorate and Tulkarm Governorate to attract the other types of industries in both areas is recommended. Together, the two governorates have about 1,500 industrial facilities together. This industrial estate is recommended to be specialized in the food industries, the fabricated metals products industries, wearing apparel industries. The size should be relatively small but enough to cover the small number of industries in the region.
5. Expansion of BIE is recommended as the first one did not cover all the industries in the region. The new expanded areas is recommended to specialize in the metals products industries, nonmetallic mineral products industries as well as the wood and furniture industries.

When choosing the appropriate location for these industrial estates, the protection plan, prepared as a basis for the National Spatial Plan, needs to be restricted. The following factors should be taken into account:

- Wind direction in the area.
- The soil nature and the land cover, considering the preservation of the high value agricultural areas and forests.

- The natural terrain surrounding the location and the land slope.
  - The land ownership.
  - Local market location, the industrial estates location should be close to the local market in the area and also close to the raw materials supplying points.
- ✓ **Strategy 3: Enhance the role of Palestinian women in the industrial sector**

To achieve this strategy, the following actions are proposed:

- a) Encourage the female students to study in in the vocational schools and technical colleges.
- b) Hold training courses to prepare the women for the industrial jobs.
- c) Provide incentivise the industrial facilities to have a certain percentage of women labourers.

## **6.6 Strategic Planning Framework Implementation**

To properly implement the industrial estates strategic planning framework, Joint efforts need to materialize involving the Ministry of National Economy represented by PIEFZA, the Ministry of Labour, the Ministry of Education and Higher Education, the municipalities, the private sector organizations, the NGOs, the universities, and colleges. The plan should be discussed with all of those parties to listen to their opinions and make changes if necessary in order to gain their support on the framework.

The integrated efforts of all of these parties are necessary to the planning, construction, and operating the industrial estates in Palestine considering the suggested framework. Such efforts are also needed to prepare the professional and qualified human resources needed for successful industrial estates.

In order to implement the industrial estates strategic planning framework, the following steps are suggested:

- The strategic planning unit of PIEFZA should be activated and empowered to take the responsibility of monitoring the implementation process. The unit should prepare a detailed implementation plan with specific time durations, clarifying the responsibilities and tasks that should be detailed and allocated to the different parties in addition of preparing the budgets needed.
- The implementation period of the framework is suggested to be 10 years, which is consistent with the remaining 4 years of the current national policy agenda (2017-2022), in addition to the next cycle of 6 years.
- The suggested framework has to be adopted by PIEFZA and the Ministry of National Economy, approved by the council of ministers, and then develop it to be achieved through integrated guidelines.
- The Ministry of National Economy and the Ministry of Local Government have to formulate the regulations for the industrial estates based on the suggested framework.

- The Ministry of Labour, the Ministry of Education and Higher Education and PIEFZA have to direct the planning process of the national policy which is directed to guide the high school students to raise their awareness on the specializations needed in the Palestinian market and provide incentives to attract them to the vocational branches, within the provided programs in the high schools.
- The industrial investors and industrial estates developers have to implement the regulations while constructing and operating the industrial estates.
- National focus and support on the strategic planning framework from all of the PNA organizations should be secured.

## **6.7 Conclusions**

The aim of this research was to develop a strategic planning framework for the industrial estates in Palestine. This aim was achieved in this chapter, which is based on the outcome of the strategic analysis presented in the previous chapter. The vision, mission and the goals of the Palestinian industrial estates were set considering the outcomes of the strategic assessment. The objectives that are needed to reach to the main goals and the strategies with the appropriate actions to implement them were then formulated.

Table 6.1 summarizes the goals, objectives, strategies, and actions of Palestinian industrial estates strategic planning framework.

**Table (6.1): The goals, objectives, strategies, and actions of Palestinian industrial estates strategic planning framework**

Goals	Objectives	Strategies	Actions
<p>Provide advanced industrial businesses that facilitate the work of the industrial facilities.</p>	<ol style="list-style-type: none"> <li>1. Provide all the basic services to the investors such as electricity.</li> <li>2. Facilitate the daily tasks for the investors by providing all the key services that been frequently used by industrial facilities in the estates.</li> <li>3. Facilitate the legal process of the investors in the industrial estates.</li> </ol>	<ol style="list-style-type: none"> <li>1. Providing of all the basic services to the investors</li> </ol>	<ul style="list-style-type: none"> <li>• <b>Electricity service:</b> <ol style="list-style-type: none"> <li>1. Encourage the investors to use energy saving machines and the ones operated by gas.</li> <li>2. Support using the roofs of the factories to generate part of the electricity using solar cells.</li> <li>3. Enhance and modify the electricity network to make it bear the high voltage pressure.</li> <li>4. Arrange for periodic maintenance for the electricity network.</li> </ol> </li> <li>• <b>Water and waste water service:</b> <ol style="list-style-type: none"> <li>1. Encourage the investors in food industries to do the washing of crops in the areas that do not have water problems.</li> <li>2. Improve the water supply system by building water tanks and digging deep wells.</li> <li>3. Provide waste water treatment units in the industrial estates.</li> </ol> </li> </ul>

Goals	Objectives	Strategies	Actions
			<ul style="list-style-type: none"> <li>• <b>Solid waste collection service:</b> <ol style="list-style-type: none"> <li>1. Provide sufficient containers for each industrial facility.</li> <li>2. Arrange for a daily solid waste collection with the responsible party.</li> <li>3. Provide waste dump sites specialized for the industrial wastes.</li> </ol> </li> <li>• <b>Transportation service:</b> <ol style="list-style-type: none"> <li>1. Provide public transportation services from the industrial estates to the centers of the cities in which they are located and vice versa.</li> <li>2. Provide proper access roads to the proposed sites for the industrial estates.</li> <li>3. Provide sufficient parking areas for all the industrial estates parties.</li> </ol> </li> <li>• <b>Security issues:</b> <ol style="list-style-type: none"> <li>1. Build walls to surround the industrial estates from all sides with security arrangement at each entrance.</li> </ol> </li> </ul>

Goals	Objectives	Strategies	Actions
			<ol style="list-style-type: none"> <li>2. Construct security cameras network to secure the inner streets of the industrial estates.</li> <li>3. Contract with security companies to guard the industrial estates.</li> </ol>
		<ol style="list-style-type: none"> <li>2. Providing of key services that have been frequently used by industrial facilities</li> </ol>	<ol style="list-style-type: none"> <li>1. Provide housing for the laborers living far from the industrial estates.</li> <li>2. Provide proper services facilities that should be inside the industrial estates such as banks and insurance offices.</li> </ol>
		<ol style="list-style-type: none"> <li>3. Facilitate the legal process of the investors in the industrial estates.</li> </ol>	<ol style="list-style-type: none"> <li>1. Have open communication channels between PIEFZA and the investors.</li> <li>2. Develop proper internal regulations.</li> </ol>
<p>Maintaining clean and healthy environment in the industrial estates</p>	<ol style="list-style-type: none"> <li>1. Maintain healthy environment inside the industrial estates.</li> <li>2. Provide a healthy environment in the areas surrounding the industrial estates.</li> <li>3. Take advantage of the natural resources to the maximum possible level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Maintain healthy environment inside the industrial estates.</li> </ol>	<ol style="list-style-type: none"> <li>1. Prepare zoning plans or update the existing ones.</li> <li>2. Use sound insulation in the factories that are very close to each other to reduce the noise.</li> <li>3. Provide green areas inside the industrial estates.</li> <li>4. Encourage the idea of using the waste outputs of the industries as raw materials for other industries if possible.</li> </ol>

Goals	Objectives	Strategies	Actions
		<p>4. Provide a healthy environment in the areas surrounding the industrial estates.</p>	<ol style="list-style-type: none"> <li>1. Plant tree belts surrounding the industrial estates to clear the air and reduce the dust.</li> <li>2. Adopt solid waste separation systems to separate the waste that will cause harm to the environment if not properly disposed.</li> <li>3. Adopt waste water treatment systems to treat the waste water and clean it from any chemicals that can harm the surrounding soil or water resources.</li> <li>4. Strict monitoring of the pollution levels in the air where each factory should purify the resulted smokes and air from the industrial activities from any air pollutants.</li> </ol>
		<p>3. Take advantage of the natural resources to the maximum possible extent.</p>	<ol style="list-style-type: none"> <li>1. Use the roofs of the factories to generate part of the electricity needed using solar cells.</li> <li>2. Benefit from any natural water resources that exist in the area such as lakes in the industrial production process.</li> <li>3. Encourage investing in the natural resources industries such as salt and minerals extraction from the Dead</li> </ol>

Goals	Objectives	Strategies	Actions
Enhance the contribution of the industrial sector in the Palestinian national economy	<ol style="list-style-type: none"> <li>1. Enhance the competitiveness and attraction of the industrial sector</li> <li>2. Increase the utilization of modern technology and support the creative related ideas.</li> <li>3. Contribute in supporting the Palestinian economic through regulations that favour the Palestinian products compared with the imported products.</li> </ol>	<ol style="list-style-type: none"> <li>1. Enhance the competitiveness and attraction of the industrial sector</li> </ol>	<ol style="list-style-type: none"> <li>1. Promote Palestinian industrial products by holding national and international exhibits to present the products of the industrial estates.</li> <li>2. Organized programmed group meetings with potential investors, Arabs and Palestinians living outside Palestine to familiarize them with the Palestinian industrial estates.</li> <li>3. Hold national and international exhibits to present the products that are produced in the industrial estates.</li> <li>4. Design incentive packages to Arab and international investors and organizations to invest in the industrial estates.</li> </ol>
		<ol style="list-style-type: none"> <li>2. Increase the utilization of modern technology and support the creative related ideas</li> </ol>	<ol style="list-style-type: none"> <li>1. Support establishing incubators to backup and finance the initiatives creative projects.</li> <li>2. Increase the interaction and cooperation with the international industrial estates and arrange visits to</li> </ol>

Goals	Objectives	Strategies	Actions
			<p>learn about the technology they use in their industries.</p> <p>3. Hold meetings between the national and international investors with the universities graduates and the entrepreneurs to be financially supported.</p>
		<p>3. Contribute in supporting the Palestinian economic by encouraging the Palestinian products compared with the Palestinian</p>	<p>1. Devise polices that discourage importing products which have local alternatives and increase the taxes on the imported products that do not have alternatives.</p> <p>2. Encourage the investors and provide incentives to invest in industries that produce products needed by local market.</p>
<p>Enhance the regulatory environment for the industrial estates</p>	<p>1. Formulate laws and regulations dedicated to develop and protect the industrial estates.</p> <p>2. Formulate laws and regulations to facilitate the transfer of the</p>	<p>1. Formulate laws and regulations dedicated to develop and protect the industrial estates.</p>	<p>1. Put regulations to have preferential tariffs for electricity, water and solid waste collection in the industrial estates.</p> <p>2. Devise regulations to reduce the licensing cost for the factories willing</p>

Goals	Objectives	Strategies	Actions
	<p>industrial factories distributed randomly in the cities of Palestine to the industrial estates.</p>	<p>2. Formulate laws and regulations to facilitate the transfer of the industrial factories distributed randomly in the cities of Palestine to the industrial estates</p>	<p>to be established in the industrial estates.</p> <p>3. Devise regulations to reduce or eliminate the taxes on the equipment and productions line imported from other countries for the industrial uses of the industrial estates.</p> <p>1. Give a financial compensation for the investors to compensate them for the costs of moving their facilities to the industrial estates and the cost of losing their production line setup.</p> <p>2. Establish regulations that allow to rent the industrial facilities with low prices at the start, then the prices can be gradually increased until it reaches the normal range.</p>
<p>Provide job opportunities to overcome the high percentage of unemployment in Palestine</p>	<p>1. Provide the required numbers of talented workers and professional technicians needed to operate the industrial estates.</p> <p>2. Conduct proper planning for the industrial estates</p>	<p>1. Increase the numbers of professional technicians in Palestine.</p>	<p>1. Devise a national policy directed to raise awareness of high school's students on the specializations needed in the Palestinian market and to guide and attract them to the vocational branches.</p> <p>2. Support and encourage the</p>

Goals	Objectives	Strategies	Actions
	<p>in term of location and size.</p> <p>3. Enhance the role of Palestinian women in the industrial sector.</p>		<p>students to study in the technical colleges by providing a free or semi-free education.</p> <p>3. Establish business development centers that deliver the needed training courses to graduate well qualified specialists and laborors.</p> <p>4. Coordinate the above responsibilities among the key stakeholders such as the Ministry of National Economy represented by PIEFZA and Ministry of Labour.</p>
		<p>2. Conduct proper planning for the industrial estates</p>	<ul style="list-style-type: none"> <li>• Choose the proper locations, sizes and industries for the proposed industrial estate</li> </ul> <p>the following industrial estates locations are suggested:</p> <ol style="list-style-type: none"> <li>1. Industrial estate in Hebron Governorate.</li> <li>2. Industrial estate in Nablus Governorate.</li> <li>3. Industrial estate in Ramallah/ Al-Bireh/</li> </ol>

Goals	Objectives	Strategies	Actions
			<p>Betounia municipal area.</p> <p>4. Industrial estate between Qalqilya and Tulkarm City.</p> <p>5. Expansion of BIE is recommended.</p>
		<p>3. The role of Palestinian women in the industrial sector.</p>	<ul style="list-style-type: none"> <li>• Encourage the female students on studying in the vocational and technical collages.</li> <li>• Hold training courses to prepare the women for the industrial jobs</li> <li>• Incentivize the industrial facilities to have a certain percentage of women laborors.</li> </ul>

**Chapter Seven**

**Conclusions and  
Recommendations**

## **Chapter Seven**

### **Conclusions and Recommendations**

#### **7.1 Summary and Conclusions**

The aim of this study is to formulate a strategic framework that will help to develop the Palestinian industrial estates, which will eventually result in improving the Palestinian industrial sector.

After reviewing the related studies on strategic planning for industrial estates, interviewing the industrial sector decision makers, investors, and experts in the Palestinian economic and development, then analyzing the data and information obtained using the SWOT analysis, the strategic development framework for the Palestinian industrial estates was formulated including the vision and mission, the goals and objectives, the strategies and the proposed actions that will lead to achieve them.

In this study, several tools were used to formulate the industrial estates strategic framework, including desk search of literature on a sample of international and national industrial estates case studies, interviews, and the SWOT analysis tool. These tools also helped in identifying the key priority issues for the development of industrial estates in Palestine, establishing the vision and mission statements, defining the goals and objectives, and in generating the proposed strategies and actions.

The conclusions from this research are summarized below:

1. It is important to have a long-term national strategic plan for the industrial estates. The plan should propose locations to build new

industrial estates, it also should include their sizes, types of industries they will accommodate, the needed infrastructures, and the utilities and the common facilities they will have. The framework proposed in this research suggests the following new proposed industrial estates:

- ✓ An industrial estate in Tarqumia in Hebron Governorate, where the size of the estate should be the largest of the industrial estates existing in the West Bank.
  - ✓ An industrial estate in Nablus Governorate to attract the industries in Nablus and Salfit Governorates.
  - ✓ An industrial estate in Ramallah/Al-Bireh/Betounia municipal area to cover the industries in the region.
  - ✓ In addition to the proposed technological industrial estate at the premises of Palestine Technical University-Kadoori in Tulkarm City, industrial estate between Qalqilya Governorate and Tulkarm Governorate to attract the other types of industries in both areas is recommended.
  - ✓ Expansion of BIE is recommended as the first one did not cover all the industries in the region.
2. The provision of the needed utilities and infrastructure is essential for the success of any industrial estate. These include the electricity, water, waste collection, transportation, access roads, and security systems. The framework suggested strategies to properly provide those infrastructure

and utilities in addition to strategies to overcome some of their shortage problems.

3. The services needed for some basic daily activities inside the industrial estates should be provided, such as labors housing services, banks, insurance offices, printing and imaging libraries, legal consultancy offices, advertising companies, restaurants, supermarkets, and kindergardens.
4. Minimizing and treating all kinds of pollution resulted from the industrial estates is very important. To achieve that, the research suggests strategies to overcome the resulting pollution problems.
5. The regulatory environment for the industrial estates should be enhanced. To achieve that, the research suggests strategies that include formulating regulations dedicated to develop and protect the industrial estates by PIEFZA with the approval of the Council of Ministers. In addition to that, strategies to facilitate the transfer of the industrial factories distributed randomly in the Palestinian cities to the industrial estates is proposed to be developed by the Ministry of Local Government with the approval of the Council of Ministers.
6. Enhancing the contribution of the industrial sector in the Palestinian national economy is an important goal of the Palestinian industrial estates. To achieve that, the research suggests strategies to attract the investors to invest in Palestine and to promote the Palestinian industrial

products. The research also suggests strategies to replace the imported products with Palestinian products.

7. Localizing the technology in the industrial estates should be a priority. To achieve that, the research suggests strategies to increase the utilization of modern technology and support those with the initiatives and entrepreneurs.

## **7.2 Recommendations**

With considering the conclusions, the following recommendations are presented hereafter.

- The strategic framework should be debated with all the involving parties, including PIEFZA, the Ministry of National Economy, the Ministry of Labour, the Ministry of Education and Higher Education, Ministry of Local Government, the municipalities, the Federation of Palestinian Chambers of Commerce, Palestinian Federation of Industries, Palestinian Farmers Union, and the private sector organizations, the NGOs, the universities, and colleges. The plan should be discussed with all of those parties to listen to their opinions and make changes if necessary in order to gain their support on the framework.
- All the decisions makers, the ministries such as the Ministry of National Economy represented by PIEFZA and the Ministry of Labour,

have to joint their efforts in order to devise the needed regulations and laws.

- The private sector organizations, the NGOs, the colleges and the universities, in addition to the Federation of Palestinian Chambers of Commerce, and the Palestinian Federation of Industries, should be involved in the business development training, by provide the youth with the needed workshops to enhance their personal decision-making practices, knowledge exchange, and aware them on the qualifications needed in the market.
- Improve the role of PIEFZA as facilitator of the legal issues between the government and the industrial estates parties.
- A detailed roadmap should be prepared considering the strategic framework. This map should include the detailed actions plan with specific dates, budgets and responsibilities distribution and allocated to the responsible units or persons. The strategic planning unit of PIEFZA should take the responsibility of preparing and monitoring such actions plans and to adjust it if necessary during the implementation process.
- The strategic planning unit of PIEFZA should take the responsibility of monitoring the implementation process. The unit should prepare a detailed implementation plan with specific time durations. All the responsibilities and tasks should be detailed and allocated to the different parties in addition of preparing the budget needed for the process.

- The implementation period of the framework is suggested to be 10 years, which is consistent with the remaining 4 years of the current national plan, in addition to the next cycle of 6 years.
- To successfully implement the strategic framework, all the involved parties should be engaged in the preparation of the detailed strategies and actions of the framework, while the developers and investors should be involved in the general outlines of the strategic framework.

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# Appendix

## **Interviews**

### **Palestinian Industrial Estates and Free zones Authorities (PIEFZA)**

- **Dr. Ali Shaath**

CEO of the Palestinian Industrial and Free zones Authorities  
(PIEFZA).

- **Eng. Fadwa Azem**

Director of Planning and Studies Department.

- **Eng. Khalid Al-Amleh**

Director of Jericho Agro- Industrial Park (JAIP).

- **Eng. Taher Danuon**

Director of Bethlehem Industrial Estate (BIE).

### **Expert in the National and International Economy**

- **Prof. Omar Abdel-Razeq**

Former Minister of Finance

Lecturer at An-Najah National University.

### **Expert in the National Planning and Development**

- **Dr. Ahmad Saleh**

Former National Spatial Plan Director.

**Investors at JAIP**

- Reehana for food and investment Company.
- Siba Company.
- Palolea Company.

**Investors at BIE**

- Bethlehem Star Company.
- HMC Company.
- Holly Land Plast Company.

# **Annexes**

## Annex I

### Gaza Industrial Estate (GIE)

This industrial estate began operation in 1999. It is considered one of the most tangible achievements with respect to industrial development with proper considerations of the environmental aspects as it has a key role for ending the problems of many factories and workshops which spread significantly amongst the residential neighborhood in Gaza Strip ending the problems of many factories and workshops which spread significantly amongst the residential neighborhood in Gaza Strip (PIEFZA, 2018).

- **Background**

The following information provide a good background about GIE:

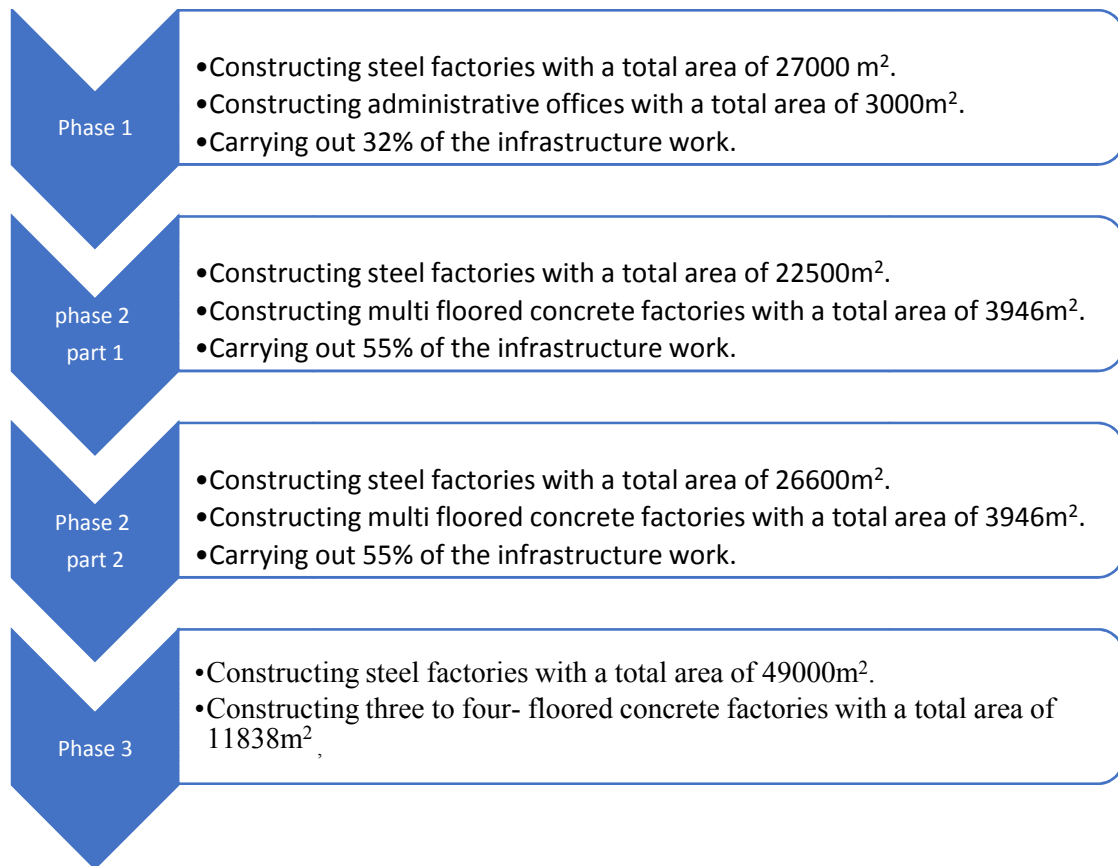
- ✓ **Location:** GIE is located in the northern part of the Gaza Strip east of Gaza City which is considered to be a convenient location since it is only 4 km away from Al Shohada Square (down town of Gaza City), and adjacent to Al Montar Crossing. Figure 1 shows the plan of GIE (PIEFZA, 2018).
- ✓ **Project Phases:** GIE was built in three phases as illustrated in Figure 2, all three phases were completed and fully occupied (PADICO, 2018).
- ✓ **Developer:** Palestinian Industrial Estate Development and Management Company (PIEDCO) is the developer of GIE. PADICO was founded in 1997 at a joint capital of 10 million USD. In the year

2012, the company's capital was increased to reach 14,485,566 USD.  
 (PADICO, 2018)



**Figure (1): GIE Plan**

Source: PADICO, 2018



**Figure (2): GIE developmental phases**

Source: PADICO, 2018

The total area of (GIE) is 485 dunums broken down into five land use as shown in Table 1.

**Table (1): Gaza Industrial Estate land use classification**

Use	Percentage %
Industrial facilities	70%
Administrative offices	2.15%
Roads, parking, driveways etc.	21.2%
Public services	3.15%
Green areas	3.5%
Total	100%

Source: PADICO, 2018

PADICO states that it aims to foster local and foreign investments in the Palestinian industrial sector, by originating, improving and building up the entire Palestinian IE's in conformity with environmental, organizational

and developmental criteria and to deliver extraordinary levels of distinctive service (PADICO, 2018).

✓ **Land lease period:** The lease period between PIEFZA and PADICO is 49 years and it can be renewed.

- **Infrastructure**

GIE provides the industrial facilities with the following infrastructure services (PIEFZA, 2015):

✓ **Electricity:** GIE provides an uninterrupted power supply through an agreement with the electricity distribution company to maintain delivering power supply to GIE via 21 converter chambers, fully equipped with electric panels and transformers all over the main streets which provides more than 600 amperes. In addition to that, GIE provides a network of street lighting and internal electrical installation inside the factories if the tenant needs that. The price of electricity consumption is around 0.60 NIS per kilowatt with monthly subscription of 30 NIS which is the same prices charged in Gaza Strip. Solar Energy System project is currently under construction on an area of 57,000 m<sup>2</sup> with a system capacity of 7 MW. The solar panels are planned to be placed on the rooftops of the hangers.

✓ **Water:** GIE has three wells for brackish water with capacity of 2,000 m<sup>3</sup>/day, and two water networks (brackish and desalinated) which distribute water to factories from an elevated water tanks to provide

water of four bars. Capacity of the brackish water tank is 1,200 m<sup>3</sup> while the capacity of the desalinated water tank is 600 m<sup>3</sup>. There is a desalination plant with capacity of 400 m<sup>3</sup> per day that provide water with salts not exceeding 100 m<sup>3</sup> versus a price of 1.90 NIS per m<sup>3</sup>. The price of brackish water is 0.54 NIS per m<sup>3</sup> (PIEFZA, 2015).

- ✓ **Telecommunication:** There is a telecommunication network for the entire GIE designed to meet the needs of any factory with any needed number of lines.
- ✓ **Security:** Special securities guard the GIE throughout the day (24 hours) is provided; the main gates are controlled as well as the streets and facilities inside GIE.
- ✓ **Maintenance and Hygiene:** Maintenance of buildings and factories are provided in the GIE on daily basis. In addition to maintenance of the green areas (garnish, water, etc.). GIE also provides trash bins to collect solid waste (PIEFZA, 2015).

- **Industries and their Characteristics**

GIE targets all kind of industries such as furniture industry, food industry, wood industry, aluminum industry, and plastic industry.

Industries facilities in GIE were classified into four groups:

1. Large industries (1,000m<sup>2</sup> to 2,000m<sup>2</sup> per plot).
2. Medium Industries (500m<sup>2</sup> to 1,000m<sup>2</sup> per plot).

3. Small industries (250m<sup>2</sup> to 500m<sup>2</sup> per plot).
4. Special industries (upon request).

GIE had provided nearly 1,727 job opportunities and its total investment was about 344,151,100 USD (PADICO, 2017). Table 2 illustrates the industries existing in GIE in addition to the size of investment and number of job opportunities provided by each type (PIEFZA, 2015).

**Table (2): GIE existing industries**

<b>Number</b>	<b>Industry type</b>	<b>Number of enterprises</b>	<b>Worker number</b>	<b>Investment size (USD)</b>
<b>1</b>	Plastic industries	1	72	3,957,000
<b>2</b>	Food industries	12	669	22,227,338
<b>3</b>	Chemical industries	2	87	1,500,000
<b>4</b>	Wood industries	5	124	1,780,000
<b>5</b>	Stores	8	97	770,000
<b>6</b>	Metal industries	5	119	965,000
<b>7</b>	Clothes manufacture	16	632	7,809,900
<b>8</b>	Pharmaceutical industries	1	3	112,000
<b>9</b>	Caravan industry	1	80	750,000
<b>10</b>	Banking services	1	22	1,000,000
<b>11</b>	Information technology	1	4	35,000
<b>12</b>	Electrical industries	1	6	90,000
<b>13</b>	General trading offices	1	36	80,000
<b>14</b>	Furniture industries	4	76	544,200
	<b>Total</b>	<b>59</b>	<b>2,027</b>	<b>41,620,438</b>

Source: PIEFZA, 2015

- **Facilities and Structures**

GIE buildings include steel factories with a total area of 48,637 m<sup>2</sup>, administrative offices with a total area of 3,142 m<sup>2</sup>, multi floored concrete factories with a total area of 3,942 m<sup>2</sup>. The 72 built up factories existing in GIE were built according to following international standards (PADICO, 2018):

- ✓ Thermal isolation roof to maintain the heat inside the factories.
- ✓ Transparent panels on the ceilings and walls for lighting and ventilation of factories.
- ✓ Concrete floors with expansion joints which bear high weight and pressure.
- ✓ Side walls height is 6.20 m.
- ✓ Middle height of the hangar is 7.70 m.
- ✓ Hangers have linear ventilation facilities with special standards.

In addition to the facilities above, GIE also has many service facilities on site such as civil defense, customs department and tax department.

PIEDCO offered the investors in GIE many incentives through PIEFZA, including:

- ✓ Tax exemptions based on the Palestinian Law No. 10 for the year 1998.

- ✓ Half of the crossing's regular paid fees.
- ✓ Priority in obtaining permits.
- ✓ Two BMC's (Business Cards) for each project.
- ✓ Annual stay grants for foreign passports holders.
- ✓ Each investor can bring in two customs-free cars.
- ✓ Safety and security.

There is an administrative building of PIEFZA in the GIE to facilitate the procedures for the investors and to make the necessary required licenses to any factory from the specialized ministries versus a payment of license fees equal to 1,000 USD (PIEFZA, 2018).

- **Environmental issues**

GIE adopts international environmental standards to end many of the environmental problems in Gaza Strip, which are as follows:

- ✓ Sewage leak to underground water wells due to damage of the sewage network of factories located in residential areas, which pollutes the drinking water.
- ✓ Factories located in residential areas pump sewage to the sea, leading to a severe shortfall in the quantity and quality of the fishery which contributes largely to human nutrition in Gaza.

- ✓ Visual pollution due to the presence of factories within residential areas.
- ✓ Noise from factories, causing permanent disturbance for residents in residential areas.
- ✓ Traffic jams as well as pollution and noise resulting from the movement of trucks within residential areas.

GIE is designed on the basis of environmental conservation against pollution, therefore, it has an integrated infrastructure that includes a sewage network and a sewage station to ensure no leakage of sewage, where they accumulate in the main sewage station (PADICO, 2018).

## Annex II

### Jenin Industrial Free Zone (JIFZ)

Jenin Industrial Free Zone (JIFZ) is an under-construction industrial estate. The overall objective of the project is to support and contribute to the growth of the Palestinian economy in a sustainable way, offering new jobs, where it is expected to have 5,000 immediate job opportunities and another 15,000 indirect job opportunities (PIEFZA, 2015).

- **Background:**

The following information provide a general background about JIFZ:

- ✓ **Location:** JIFZ is located to the north of Jenin City away about 3km from Jenin city center to the West of Al-Nasirah Street. Transport Time from JIFZ to Al-Karamah Crossing Border is 2-3 hours, to Ashdod Port about 3 hours and to Haifa Port 1 to 1.5 hours (PIEFZA, 2015).
- ✓ **Project Phases:** The total area of the free zone as shown in Figure 3 is 933 dunums containing 15 dunums for the construction of the railway network, 15 dunums for the construction of the electrical transformation station, 40 dunums dedicated for the services and the remaining 860 dunums for the industrial estate. An area of 3,000 dunums had been transferred from “Area C” which was under the Israeli occupation control to “Area B” which is under the control of the PNA (PIEFZA, 2015).



**Figure (3): JIFZ's master plan**

**Source: PIEFZA, 2018**

- ✓ **Developer:** PIEFZA contracted with Turkish Industrial Zone Development Company TOBB-BIS in 2010 to develop JIFZ from the internal infrastructure to the industrial facilities with all of their components with a condition to keep 15% of the area as green area (PIEFZA, 2015).

✓ **Land Leasing Period:** Maximum 49 years and renewable to another 49 years

- **Infrastructure**

JIFZ will include the necessary infrastructure needed for the operation such as roads, water network, and waste water network and treatment plant, power supply with 35 MW transformers, natural gas network, in addition to a solid waste disposal system (PIEFZA, 2015).

- **Facilities and Structures**

In addition to the industrial structures, JIFZ is planned to have structures for security check, administration and operation buildings, logistic areas and parking areas (PIEFZA, 2015).

- **Industries and their Characteristics**

JIFZ target the agro-foods companies with high technology, and any other light industries.

The National Policy Agenda adopted by the Palestinian authorities for the years 2017-2022 included a special agenda for the industrial sector. This agenda was formulated based on the national vision for the pivotal role of the industrial sector growth and development in Palestine which include maximizing the returns of the natural wealth, investing them and employing expertise.

The agenda focused on improving the partnership between the public and private sectors, it also focuses on encouraging the investment in all economic sectors in general, and in the industrial estates in particular, to raise the contribution of the industrial sector in the output GDP to about 15% by the end of the year 2022 (PIEFZA, 2018).

جامعة النجاح الوطنية  
كلية الدراسات العليا

# التخطيط الإستراتيجي للمدن الصناعية في فلسطين

إعداد  
آيه صالح حسان

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أ. د. سمير أبو عيشه

قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الماجستير في الإدارة الهندسية بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس، فلسطين

2018م

ب

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### الملخص

تهدف هذه الدراسة إلى إعداد إطار إستراتيجي لتطوير المناطق الصناعية في فلسطين. وجاء الدافع لإجراء هذا البحث بسبب عدم وجود دراسات وخطط استراتيجية للمدن الصناعية الفلسطينية، على الرغم من أهميتها الاستراتيجية للتنمية الاقتصادية.

وقد استفاد هذا البحث من التجربة الدولية في تطوير المدن الصناعية من خلال دراسة عدد من الحالات الدراسية حول العالم، إضافة لتحليل ودراسة المدينتين الصناعيتين اللتين تمت المباشرة بتطويرها مؤخرا في الضفة الغربية، وهما: مدينة أريحا الزراعية الصناعية ومدينة بيت لحم الصناعية. وقد تم إجراء التحليل الاستراتيجي لهاتين المدينتين الصناعيتين، جنبا إلى جنب مع إجراء تحليل لوضع القطاع الصناعي على المستوى الوطني، وذلك باستخدام منهجية التحليل الرباعي، بهدف التعرف على نقاط القوة والضعف والفرص والمخاطر التي تواجه المدن الصناعية الفلسطينية. وقد تم إجراء التحليل بالاستفادة من الخبرة المكتسبة من دراسة الحالات الدولية، وتقييم المعلومات التي تم جمعها، ومقابلة صناع القرار ومجموعة من المستثمرين في القطاع الصناعي، بالإضافة إلى خبراء في التخطيط والاقتصاد. وقد ساعد هذا التحليل في تحديد العوامل الأكثر أهمية والتي يجب أخذها بالاعتبار عند تطوير القطاع، وفي صياغة الإطار الإستراتيجي لتطوير المناطق الصناعية في فلسطين، والذي يتضمن الرؤية والرسالة، والأهداف الرئيسية والأهداف الفرعية، بالإضافة إلى الاستراتيجيات والإجراءات الرئيسية التي ستؤدي إلى تحقيق تلك الأهداف.

وكان من ضمن استنتاجات الدراسة، أن هناك حاجة لبناء خمس مدن صناعية جديدة في الضفة الغربية. وبينت النتائج أهمية توفير البنية التحتية المناسبة بالإضافة إلى كافة المرافق الخدماتية اللازمة لإنجاح المدينة الصناعية.

وقد أوصى البحث بإعداد خطة إستراتيجية وطنية طويلة الأجل لتطوير لمناطق الصناعية في فلسطين، وذلك إستنادا إلى الإطار الإستراتيجي المقترح. كما أكدت التوصيات على ضرورة مشاركة جميع الأطراف المعنية في إعداد الإستراتيجيات والإجراءات التفصيلية للإطار والحصول على دعمها لضمان نجاحه. بالإضافة إلى ذلك، أوصى البحث بتعزيز البيئة التنظيمية للمناطق الصناعية من أجل تطوير وحماية المنشآت الصناعية في المناطق الصناعية.

وختاما، سيكون لمخرجات هذه الدراسة عند تبنيها أهمية كبيرة لأصحاب المصلحة في القطاع الصناعي، حيث يمكن أن تشكل أساسا مناسباً لتطوير المناطق الصناعية.