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Printing by: MAP PRINTING PRESS

TEL: 04 722884

Territorial Strategic Development Plan of Dannieh Region

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This English version of Territorial Strategic Development Plan Of Dannieh Region is a synopsis of the original Arabic version comprising 260 pages, where the main findings and outcomes were summarized. For more detailed information, please refer to the Arabic version of the study.

Introduction

Needless to say that achieving well-being and decent living for human beings is the ultimate goal of human development. Nevertheless, this goal in Lebanon faces many obstacles and challenges, most importantly a comprehensive and strategic development vision that paves the way for the achievement of human development goals by optimizing the use of different resources. In fact, the lack of statistical data and information represents the main impediment for devising such a strategy in Lebanon. At the local or regional level, there are obstacles that hamper the development process; the first is the lack of legislations that underpin the administrative decentralization and consequently prevents municipalities from promoting and presiding over the development process at the local level in addition to the weakness of institutional structures and human capabilities; The second, and as a result of the abovementioned shortcoming, there is a lack of strategic plans for development at the local level based on a comprehensive and empirical survey of the different available resources and capabilities in order to advance local economies and ensure well-being for citizens; the third, which is also related to what has been mentioned, is a severe shortage of financial resources facing local administrations, whereby municipalities remain, in view of the lack of legislations granting them powers and prerogatives, unable to get the wheels of development turning at the local level.

Against this backdrop and by virtue of its mandate consisting of supporting national efforts aiming at achieving development and well-being, the UNDP launched, within the framework of Art Gold, at the beginning of 2011 a program aiming at promoting the role of municipalities within their communities and advancing the development process. During the first stage, the program targeted 1100 senior officials in 300 Lebanese municipalities mostly elected for the first time as members of municipal councils. With the availability of needed resources, UNDP is keen on pursuing its efforts in order to promote the capabilities and skills for all employees, so as to increase the possibility of garnering necessary resources by adopting clear development visions with specific priorities leading to partnerships between the private and public sectors and local communities. Such partnerships are expected to enable the private sector to contribute to the attainment of well-being.

The partnership between the Union of Municipalities of Dinnieh and UNDP with regard to the strategic planning for development is considered as an example to be replicated in different parts of Lebanon upon availability of needed resources. In fact, this strategic planning is the outcome of months of dedicated work by hundreds of stakeholders whether heads or members of municipalities, as well as representatives from civil society organizations, youth and social centers and associations in addition to representatives from the private sector and different public institutions, namely CDR which is the national coordinator of UNDP activities in Lebanon. Moreover, this experience represents a great opportunity for public officials in the region to express their aspirations with regard to the desired shape of society and quality of life. Consequently, many workshops were supervised by a team of experts specialized in raising awareness about development challenges and possible solutions by practically matching those aspirations to the locally available resources and capabilities and ultimately adopting the present strategic planning that reflects the reality prevailing in Dinnieh and the potential advantages of the available resources in order to advance development and achieve prosperity in the region.

UNDP has selected Dinnieh as a pilot region to devise strategic plans for development on empirical and concrete basis and according to development criteria, since the region is one of the most deprived in Lebanon according to UNDP reports, and the latest one in drawing the interests of donors. Thus, UNDP quickly responded by completing the strategic planning in order to increase the efficiency and effectiveness of donors' interventions. In parallel, the motivation and commitment of all partners in the region towards the achievement of this objective were of vital importance.

And now that the picture is complete with regard to development challenges and priorities as indicated in this important paper, the biggest challenge remains the presence of political will to earmark needed resources for the implementation of development activities that are vital for the region, through centralized channels or donors, as well as promoting investment in relevant sectors in order to achieve the desired goals and improve the living standards of the local inhabitants.

This vital and pioneer work would not be achieved without the laudable readiness and cooperation of the Union of Municipalities of Dinnieh that deeply believes in the importance of strategic planning already sought for years, and

without the support of the governments of Belgium, Italy and Spain for Art Gold.

In conclusion, we would like to express our deepest thanks and gratitude for those who contributed to this work and look forward to establishing similar partnerships that ensure prosperity for all Lebanese living in this great country renowned for its generosity.

UNDP Resident Representative

Robert Watkins

Introduction

*The **Dannieh Municipalities Union** was elected in region contain eighty villages and communities. Since our election, we have come to realize that the available resources are too limited for effective work. In fact, the largest municipality in our region can barely meet its minimum requirements*

Having never received its fair share of resources or development from respective governments and having been neglected by local leaders, the Dannieh region is terribly marginalized.

The Dannieh region is a land of great contrasts. It has the highest mountain peaks and the deepest valleys. The landscape stretches out from the shore of the Mediterranean and extends to the highest mountains. It has the largest forests in Lebanon, including the rare junipers (Lezzab) forest that has been subjected to indiscriminate cutting while officials turned a blind eye. Unfortunately, the illegal cutting has been carried out without any accountability or penalty.

The region also has the largest cedar forest in the country. it is showing a healthy comeback now after it had been annihilated by rapacious clear-cutting during the Phoenicians and British and by various occupying armies, thereafter.

The region is laden with other contradictions as well: It has the greatest reserve of aquifer and the largest number of natural springs in the country. Yet, it has the largest percentage of barren land devastated by drought. It has the largest quantity of honey and fruits. Yet, it has the worst economic stagnation and the poorest agriculture sector. It has the most beautiful climate and the most diverse biological environment. Yet, it is the most polluted region in the Mediterranean basin.

The Dannieh region has the potential to entice eco and winter vacationers from all over the world, yet it is deprived of the simplest elements of tourism.

It has the highest rate of illiteracy and the worst school structures and infrastructure.

Although the population of the region lack basic infrastructure, they are the kindest, most loving and most generous people. They have a great deal of integrity and patriotism regardless of the fact that they have been living under challenging conditions.

It is apparent that the Dannieh Municipalities Union is facing enormous challenges. Our tasks are arduous, and we found ourselves asking whether we should carry out our jobs as described by the policies of municipalities, or whether we should focus on development. We decided to make development the focal point of our mission – and development is our new platform.

*With the motto “For a Better Dannieh Region”, my colleagues and I started to collaborate and work diligently; unfortunately, with our meager resources, our task is almost impossible. Of course this hasn’t dampened our resolve. To achieve our goal, we have contacted NGOs as well as government agencies for funding. To our delight, the **United Nations Development Program – ARTGOLD** have been receptive to our ideas and have expressed a keen interest and commitment to provide support and funding to conduct a meaningful strategic study for the development of the Dannieh region.*

*With the **UNDP-ARTGOLD** support, we were able to establish Local and Regional Working Groups, which began diagnosing the local situation, and work was completed with the **Consultation and Research Institute**, an organization with a proven record and distinct experience, to conduct the required strategic study. We have worked very closely with CRI to complete the study marking the first and most important step in the development process.*

The Dannieh region is classified as the poorest and most deprived region in Lebanon. We are determined to do our best to rectify this classification. It is our aim to see that the classification of the Dannieh region progresses from poor to better.

Barriers notwithstanding, we believe that we are on the right track and we are encouraged to move forward. We know that our hopes are well on their way of becoming reality and want you to join us in our endeavors.

*On behalf of the people of Dannieh we would like to extend our greatest appreciation to **the UNDP-ART GOLD** organization as well as to all those who worked closely with us to make our project a success.*

Mohamed SAADIEH (President)

Dannieh Municipalities Union

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**SECTION ONE:
METHODOLOGY**

1. INTRODUCTION

UNDP's ART GOLD Lebanon Programme (AGL) supports the Lebanese Government and local communities in achieving the UN Millennium Development Goals (MDGs) with particular attention to strengthening the capacities of local communities as one of its pillars. AGL methodology promotes the local participation of the widest range of public (local authorities) and private entities (including the representatives of civil stakeholders) in the planning and implementation of development processes. In this context, the UNDP-ARTGOLD in close collaboration with the Dinnieh Union of municipalities undertook the preparation of a strategic development plan for the region of Dinnieh in North Lebanon. The Consultation and Research Institute (CRI) was assigned by the programme to undertake the responsibility of facilitating the study and producing in close collaboration with local community of Dinneyeh the strategic development plan of the region.

Strategic planning is necessary to empower local authorities and working groups (municipalities, NGOs, youth groups, and stakeholders) and to enhance their participation in the planning process and project implementation on the basis of maximizing the benefits of available resources and human capacities, increasing the living standards and improving the quality of life.

The pioneering work of the Dinnieh Municipal Union and its full enthusiasm and awareness of the importance of strategic planning especially for areas in need for efficient development interventions was the precondition for the success of this initiative. The developed strategic plan, based on lessons learned from previous experiences in Lebanon, is an example that could be followed for other regions in the country. The strategic planning is based on the findings of fieldwork carried out in several villages in Dinnieh, which aimed at identifying the major characteristics of the region in different fields (Fauna and flora, population, institutions, economy, society, habitat, education, health, culture, environment, etc.). In fact, the collected data is outcome of months of dedicated work by hundreds of stakeholders whether heads or members of municipalities, as well as representatives from civil society organizations, youth and social centers and associations in addition to representatives from the private sector and different public institutions, namely CDR which is the national coordinator of UNDP activities in Lebanon. This phase helped in identifying the needs of the region, its key capacities in favor of closing the gap, in line with the strategic development plan.

1.1 ART GOLD BRIEF

Since its launch in March 2007 up until now, ART Lebanon has been making a difference in people's lives across the poorest regions of the country: from South and North Lebanon to Bekaa and the Beirut Southern Suburbs.

In an attempt to promote better economic and social conditions, ART Lebanon adopts a three-dimension strategy that focuses on:

- **Fostering participation at local level through the working groups**
- **Promoting decentralized cooperation partnerships between Lebanese and European regions**
- **Enforcing Territorial Economic development through promoting Local Economic Development Agencies**

➤ **Working groups**

The quality of participation in local development is enriched through 35 regional and thematic working groups that ART Lebanon established from local authorities, businesses, and civil society organisations, to farmers, youth groups, health care providers and educators. Through the identification of priority social and economic initiatives, AGL working groups tackle area-based challenges while building practical relationships with key regional and national actors.

➤ **Decentralized Cooperation**

ART Lebanon draws on appropriate technical expertise through Decentralized Cooperation with similar agencies familiar with local level realities. More than 50 such partnerships have been established directly between Lebanese and European regions and municipalities from Italy, Belgium, Spain and others.

➤ **Local Economic Development Agencies**

Local Economic Development Agencies have been established in each of the four regions to institutionalize the means for reducing poverty and regional disparities. A new concept in Lebanon and the Arab region, each LEDA consists of public and private partners on the board of its membership and management. They provide a wide range of much-needed support services for small and medium-sized businesses, cooperatives, projects for strengthening municipalities capacities and enforcing local development, etc..

The donors who have chosen to partner with AGL as a means of enhancing the impact of their support to Lebanon, range from the Principality of Monaco to the governments of Belgium, Italy and Spain, as well as the numerous European regions and municipalities involved through Decentralized Cooperation.

2. STRATEGIC PLANNING OBJECTIVES

Among the most important objectives of the strategic planning are:

- 1) To identify through qualitative and quantitative research methods the present situation of Dinnieh and determine the needs and main problems of the region;
- 2) To determine the main characteristics and specificities of the region, and shed light on its particular identity and specific role in the area (the surroundings cazas);
- 3) To determine the development priorities of Dinnieh based on the current socio-economic and environmental conditions of the region;
- 4) To develop a strategic development plan for the region, on both short and long terms, in line with the social and cultural fabric of the region as well as national structural strategies;
- 5) To propose specific development work plans and projects, based on the capacities and the natural , economic and human resources of the region;
- 6) To enhance the capacities of local human resources by increasing their participation in the projects development and implementation, which adds to the expected returns of development planning for the local community.

3. THE THEORETICAL PILLARS OF THE PROJECT:

The project “Strategic Development Planning in Dinnieh” is based on basic principles comprising the concept of development in the local context, in order to achieve the greatest improvement of the living conditions of the residents on one hand, and to promote the factors of continuity and sustainability of these conditions on the other. The human factor lies at the core of development efforts: it represents the means and aim at the same time. Thus, building and empowering human capacities and capabilities is an integral part of implementing developmental plans and projects, and is considered the basis in assessing the course of the developmental process, its orientation, production and control mechanisms.

The conceptual foundation is based on the following approaches:

Participatory approach: is an approach which emphasizes participation, it works on involving the local community in planning the different stages of the development strategy; starting from the preparation phase to the implementation and then the monitoring of the whole process, this also includes the secondary work plans of the strategy. The local community is composed of a wide range of ‘players’: community-based associations, clubs, economic stakeholders, investors, educators, professionals, municipal authorities, mayors, and other stakeholders. The participatory approach takes the form of an ascending relationship from bottom to top between all the elements that constitute the society. This approach was long advocated and followed by ART GOLD and represents a cornerstone within its

Interdependence with the surrounding: the relationship that connects the Dinnieh area with its surrounding is multi-faceted and takes different forms with the different areas in relation to its depth and expansion. The surrounding areas include the natural extension inside the Minieh-Dinnieh District, including the coastal strip inside the district and the neighboring districts; starting with Tripoli, the capital of the North, and the other districts such as Akkar, Zgharta and Hermel. The interdependence is evident in many areas: water resources, electricity-generating facilities, overlapping of the natural environment in different areas (forests, mountains, valleys), and in the distribution of the road network in the area and its surrounding, in addition to the interconnectedness of commercial exchange and production in these markets, in addition to the social networking through population intersection and displacement to and from the area, especially seeking employment, investments and education. The tourism factor plays an attractive role for some of the residents of the neighboring areas in the summer; this either takes place through summer tourism or real-estate ownership. Thus, the strategy for development cannot succeed except through considering the relationship with the surrounding, and trying to invest this in joint projects.

Linkages between the local and the national levels: Linkages between local and national development is imperative. Lebanon was established upon excessive centralization, and has always faced the need to rectify this through balanced development and administrative decentralization, in addition to re-adjusting some aspects of the macroeconomic policies. Considering the publication of many plans and national programs from the ministries and public institutions (such as the programs of the Council for Development and Reconstruction, sectoral plans for different ministries, “Master Plan of the Lebanese Territory”, other investment programs in the budgets, etc.), thus, it is

important to take into account the results of the implications of these plans and programs on local development. Some of these local development projects are able to support and reinforce development in the general national frame; for example, environmental tourism development in Dinnieh area can contribute in developing the tourism sector in Lebanon in general, through investing in the Qurnat al-Sawda location in this district, which is known as the highest peak in Lebanon, or investing in the presence of one of the biggest cedar trees forests (around 7000 cedars).

Sectoral Integration for sustainable Development: considering that sectoral development represents a main component of development strategies, however, achieving the overlap and integration between different sectors ensures the sustainability of the development process in general. For example, developing the industrial production in the area would be challenging if the influence and importance of the agricultural sector is not taken into consideration. On the other hand, the industrial development should not be based upon the depletion of the environmental factor, or the pollution of groundwater sources and the soil, which would harm the agricultural sector and production. The integration between the different sectors is imperative for the sustainability of the economic cycle in the long run. Accordingly, the sectoral approach to development should be incorporated within the comprehensive and integrated development approach.

The relationship between development and geographical division: the nature of the area and its terrain has had the deepest impact on the structuring of the urban communities and their economic role in the villages and towns of the district, and on the networking between them. Most of the villages and towns grow in a linear method, and are spread along the main road of the same village, and rarely extend outside of this road. Some of these villages and nearby towns (especially in the middle of the district, around the center of the area) are not separated by land plots or agricultural land, but are continuous through extended urban growth. Whereas the meandering and deviations in many of the road networks that pass through the mountains and around the valleys lead to difficulties in communication between the villages and the towns, and adds to the distances that separate the villages from each other. Depending on the location of the villages and towns, this has a positive impact on the location of some of the residential clusters, whereas it can have a negative impact on other clusters. The nature of the land, its soil, altitude, climate and abundance of water resources can promote the homogeneity or distinction between these clusters. Although the Dinnieh area is distinguished for its important agricultural activity, the nature of its crops and the farming and irrigation methods differ from one cluster to the other. This emphasizes the need to adopt a geographical division of the areas of the district, from a developmental perspective characterized by flexibility, as per the characteristics (homogeneity/distinction) of these clusters.

4. METHODOLOGY

The exercise was carried out in sequential phases, all of which were guided by the principle of participation and feedback seeking by the end of every phase. The research methodology comprises the following phases:

1. Desk review: The desk review phase includes the collection of literature and statistical abstracts pertaining to the region of Dinnieh (studies and fieldwork results specific to the region). Data analysis comprises the cross checking of collected data and its validation which bring to light the

gaps in information necessary for the regional strategic development planning. The area of Dinnieh was divided into homogenous residential clusters. The study team undertook field visits to the region.

2. Fieldwork: The fieldwork is the practical phase of the strategy design and includes:

- Design of the fieldwork technical tools:
 - Questionnaire about the towns and villages
 - Questionnaire about the municipal councils and municipal work
 - Questionnaire for the interviews with visionaries

- Fieldwork: The study team conducted 209 interviews with stakeholders for the collection of information about the towns and villages of Dinnieh; In addition the study team collected data pertaining to 24 municipal councils and organized 28 in-depth interviews. The fieldwork was executed between 26 July and 14 September 2011 by three teams of surveyors, made of 2 researchers each, and under the control of a fieldwork supervisor.

3. Situation analysis:

- Assessment and analysis of the situation in the region
- SWOT analysis
- Identification of the pillars and underpinnings of the strategy vision

4. Design of the strategic development plan:

- Conducting a meeting with UNDP and CDR staff for the review of the findings, and discussing with Union of Dinnyeh for the concurrence on any necessary modifications
- Feedback seeking through organizing a workshop with local community stakeholders for the discussion of the strategy results
- Drafting the final report including the segmentation of the strategy into specific work plans.

5. SELECTION CRITERIA OF MAIN GEOGRAPHICAL UNIT

The identification of the smallest geographical unit is among the most fundamental tasks within the design of a development strategy, especially in the case of a region such as Dinnieh. This task is necessary for the data collection at the level of the smallest unit and its comparison within the different clusters of the region. The identification of the smallest geographical unit is based on the guide of the *regions foncières*¹. The towns and villages included in this report are equivalent to a circumscription foncièresas determined by the department foncières. Therefore, a circumscription foncièrescan represent one specific town or include several ones.

The circumscription foncièresas mentioned in this report are classified under three categories:

1. Circumscription foncièresand is referred to as CF

¹ Central Administration of Statistics, *The guide of regions foncières, the towns and villages of Lebanon*, June 2005. This guide is the product of “the process of the unification of statistical codes and terminology used in the different units of central statistics in public institutions. It gives considerable flexibility in the process of geographical data coding and analysis.

2. A village within a circonscription foncières and is referred to as DP
3. A village which is not within an identified CF is referred to as ND

In the caza of Mennieh-Dinnieh, the areas in the region of Dinnieh have been separated of the ones in the region Mennieh on the basis of the third digit in the five-number code specific to the caza as it appears in the guide. Accordingly, the region of Dinnieh is composed of 80 towns and villages and is divided into 40 CF, 9 villages were not classified within a CF in addition to 31 villages included in CF (DP).

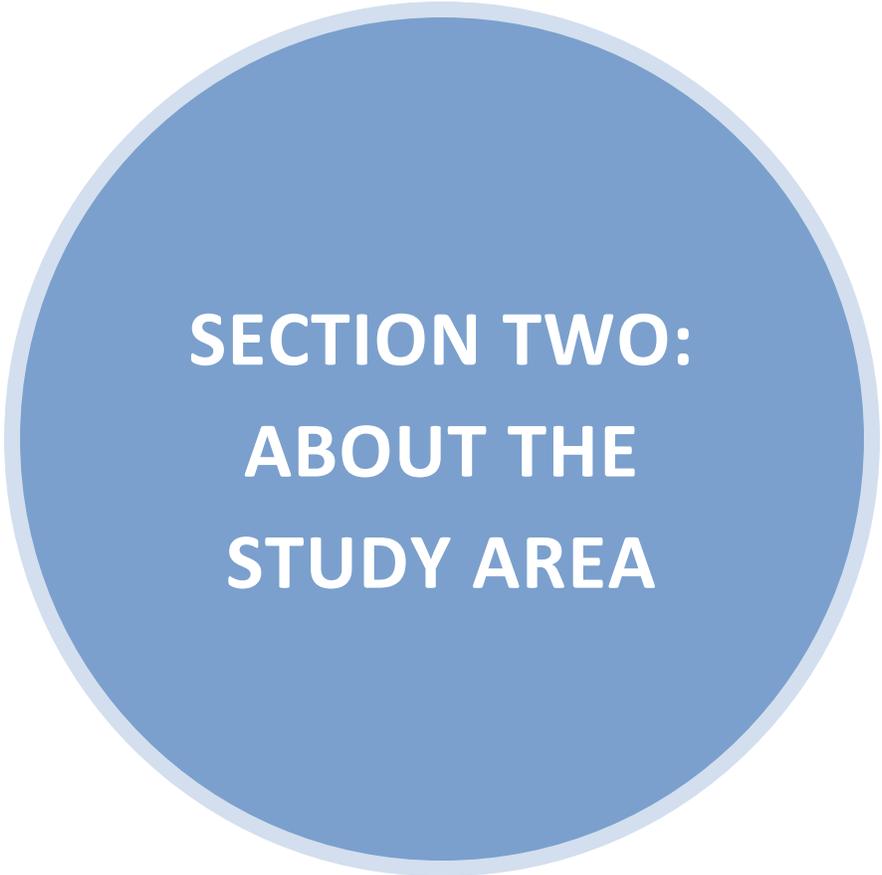
Table 1: List of villages and towns of the region according to the classification

| # | Village | Geographic Code | Classification | # | Village | Geographic Code | Classification |
|----|-----------------|-----------------|----------------|----|-----------------|-----------------|----------------|
| 1 | KHARNOUB | 37335 | CF | 20 | KHARNOUB | 37335 | CF |
| 2 | KHARNOUB | 37335 | CF | | | | |
| 3 | AASSOUN | 37313 | CF | 21 | SFIREH | 37337 | CF |
| 4 | BEIT JIDA | 37313 | DP | 22 | RAMLET EL HAMRA | 37337 | DP |
| | | | | 23 | MAQTOUAA | 37337 | DP |
| 5 | MAZRAAT KETRANE | 37314 | ND | | | | |
| | | | | 24 | QARSAITA | 37339 | CF |
| 6 | QATTINE | 37315 | CF | | | | |
| 7 | SERTOUKA | 37315 | DP | 25 | IZAL | 37341 | CF |
| | | | | 26 | BAAZQOUN | 37341 | DP |
| 8 | BQAA SAFRINE | 37317 | CF | 27 | BEIT BAKKOUR | 37341 | DP |
| 9 | OUADI EN NJAS | 37317 | DP | 28 | BEIT DAOUD | 37341 | DP |
| | | | | 29 | BEIT HASNA | 37341 | DP |
| 10 | BQARSOUNA | 37319 | CF | 30 | BEIT RADOUANE | 37341 | DP |
| 11 | BEIT MOUMNEH | 37319 | DP | 31 | MOULID | 37341 | DP |
| | | | | 32 | BEIT AATMANE | 37341 | DP |
| 12 | HAZMIYEH | 37321 | CF | 33 | DARAIYA | 37341 | DP |
| | | | | | | | |
| 13 | TARANE | 37323 | CF | 34 | BTERMAZ | 37343 | CF |
| | | | | | | | |
| 14 | NIMRINE | 37325 | CF | 35 | QEMMAMINE | 37344 | ND |
| 15 | BAKOUZA | 37325 | DP | | | | |
| | | | | 36 | HARF ES SAYAD | 37345 | CF |
| 16 | HAQL EL AAZIMEH | 37327 | CF | 37 | OUATIYEH | 37345 | DP |
| | | | | | | | |
| 17 | BEIT EL FAQS | 37329 | CF | 38 | KARM EL MOHR | 37347 | CF |
| | | | | 39 | BTEHLINE | 37347 | DP |
| 18 | MRAH ES SFIREH | 37331 | CF | 40 | CHALOUT | 37347 | DP |
| | | | | | | | |
| | | | | 41 | AIN ES SOFSAF | 37347 | DP |
| 19 | AIN ET TINEH | 37333 | CF | | | | |

Table 1: List of villages and towns of the region according to the classification

| # | Village | Geographic Code | Classification |
|----|--------------------|-----------------|----------------|
| 42 | BEIT ZOUD | 37349 | CF |
| 43 | BEIT KANJ | 37349 | DP |
| 44 | MELHA | 37349 | DP |
| 45 | MRAH ES SRAYJ | 37351 | CF |
| 46 | QRINE | 37353 | CF |
| 47 | HAOUARA | 37355 | CF |
| 48 | JOURET EL MRAH | 37355 | DP |
| 49 | DEBAAEL | 37356 | ND |
| 50 | BEIT HAOUIK | 37357 | ND |
| 51 | JAYROUN | 37358 | ND |
| 52 | BCHENNATA | 37359 | CF |
| 53 | AFQA | 37359 | DP |
| 54 | BTELLAIYEH | 37359 | DP |
| 55 | QARHAIYA | 37360 | ND |
| 56 | AAZQAI | 37361 | CF |
| 57 | AASSAYMOUT | 37362 | ND |
| 58 | KFAR CHELLANE | 37363 | CF |
| 59 | KFAR HABOU | 37365 | CF |
| 60 | AAYMAR | 37367 | CF |
| 61 | MGHARET ECH CHEIKH | 37367 | DP |

| # | Village | Geographic Code | Classification |
|----|-------------------------|-----------------|----------------|
| 62 | ZGHARTAGHRINE | 37369 | CF |
| 63 | BEHOUITA | 37371 | CF |
| 64 | KAHFF EL MALLOUL | 37373 | CF |
| 65 | JARJOUR | 37375 | CF |
| 66 | DEIR NBOUH | 37377 | CF |
| 67 | BECHHARA | 37379 | CF |
| 68 | FIRJEH | 37379 | DP |
| 69 | MARKEBTA | 37381 | CF |
| 70 | AADOUA | 37382 | ND |
| 71 | RAOUDA | 37382 | DP |
| 72 | QARNE | 37383 | CF |
| 73 | MREBBINE | 37385 | CF |
| 74 | TERBOL | 37387 | CF |
| 75 | MAZRAAT EL KREYM | 37389 | CF |
| 76 | BAKHAAOUN | 37391 | CF |
| 77 | HAQLIT | 37391 | DP |
| 78 | BEIT EL AARAB | 37391 | DP |
| 79 | KFAR BEBNINE | 37395 | ND |
| 80 | SNOUBAR (KFAR BEBNINE) | 37395 | DP |



**SECTION TWO:
ABOUT THE
STUDY AREA**

1. GENERAL INFORMATION ON THE STUDY AREA

Dinnieh falls within the boundaries of the Minieh-Dinnieh qaza in the mohafaza of North Lebanon. Before the establishment of this qaza in 1993 by Law 272/93², the area was attached to Tripoli in what was previously known as the “Tripoli villages” qaza. Once established, the new qaza formed part of the seven qazas that constitute the mohafaza of North Lebanon (knowing that there is currently a project to grant Akkar the status of an independent mohafaza). Minieh-Dinnieh is surrounded by Akkar in the North, Hermel in the East, Bsharreh and Zgharta in the South, and Tripoli in the South-West. The western part of the qaza borders the Mediterranean Sea. This is one of the few Lebanese qazas which neighbors so many others (it has common boundaries with five different qazas in the mohafazas of North Lebanon and the Bekaa), in addition to having an outlet on the Mediterranean Sea.

As its name indicates, the qaza consists of two regions:

1. **Coastal Minieh-Dinnieh:** This region constitutes the western part of the qaza, bordering the Mediterranean Sea and forming a coastal ribbon that extends from Tripoli and Zgharta in the South to Akkar in the North. It forms an important corridor that includes the international road to Syria, several vital facilities (the Deir Amar power plant), and trade and service outlets. It is also one of the major entry points into the heart of Dinnieh.
2. **Upper Minieh-Dinnieh:** The center of this region, otherwise known as Dinnieh, is Sir El Dinnieh. It extends westward to cover 49 cadastral zones and 31 villages, covering 91% of the qaza’s total area. This region opens access to Hermel via the Sir-Jbab El Homr-Hermel road which traverses Lebanon’s western mountain range. It is known for its rich natural and water resources, hence the importance of agricultural in its economy.

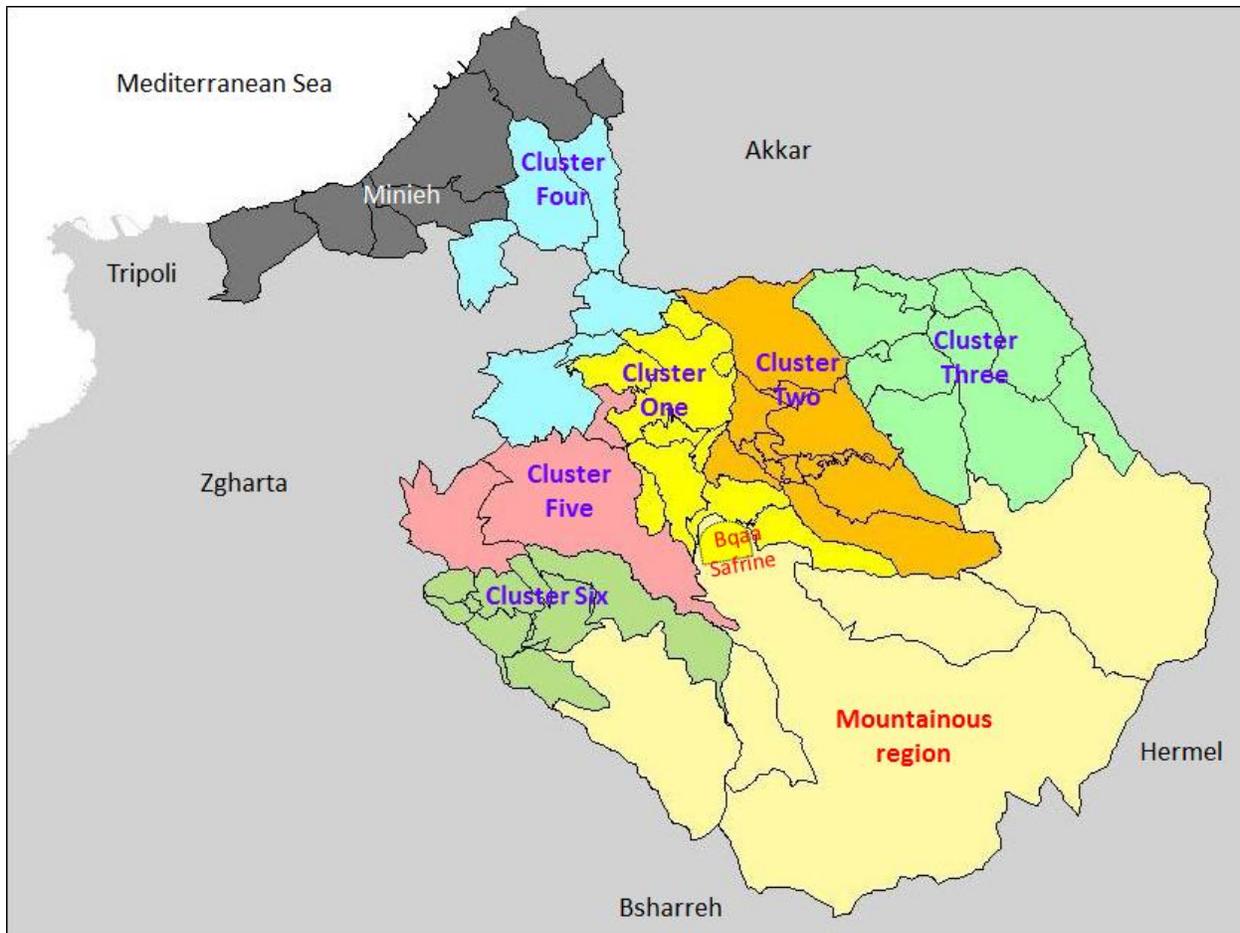
2. THE VARIOUS DINNIEH CLUSTERS AND THEIR CHARACTERISTICS

The Dinnieh area (i.e. upper Minieh-Dinnieh) presents considerable homogeneity among its regions, namely a largely rural population (with a few exceptional large towns that acts as centers for the area, such as Bakhaaoun and Sir) and the preeminence of agriculture as the major sector of activity (representing 70% of the area’s economy³). For methodological reasons, the area was subdivided into homogeneous residential clusters, as shown in figure 1.

Figure 1: Dinnieh’s residential agglomerations

² Law 272/93: the establishment of the qaza of Minieh-Dinnieh in the mohafaza of North Lebanon and the amendment of the cadre of employees in the Ministry of Interior and Municipalities – October 23 1993.

³ A Dinnieh report entitled “Dinnieh: friend of the sea and neighbor of sky” (الضنية حليفة البحر وجارة السماء), UNDP-ARTGOLD.



Based on the situational analysis extracted from the desk review and the field visits, certain criteria were used to delineate a number of residential clusters, in collaboration with the UNDP and the president of the Dinnieh municipal union. As a result, the study area was subdivided into six clusters, in addition to the mountainous Dinnieh zone which has unique topographic characteristics that may be targeted through special development projects. The resulting clusters are characterized by distinct features, as is detailed in the following sections.

2.1 CLUSTER ONE

Cluster one is located at the center of Dinnieh, or around its center (Sir), and is surrounded by the five other clusters and the mountainous Dinnieh zone. Cluster one is the beating heart of Dinnieh and includes its largest towns which host all its government agencies and the most important service outlets. It consists of nine cadastral districts and the village of Bqaasafrine (which takes up around 5% of the total area of the Bqaasafrine district). Cluster one's area is around 29.5 sq. Km, representing around 9% of the total area of Dinnieh.

This cluster is characterized by its openness, the religious diversity of its villages and towns, and the fact that it hosts the most important summer destination towns in the area, namely Sir, Bakhaaoun, Aassoun, and Bqaasafrine. It attracts coastal residents, especially from Tripoli, and includes certain facilities and services that attract tourists, such as hotels, restaurants, and cafés.

Table 1: The cadastral districts, areas, and towns of Cluster one

| Cluster One | | | | |
|-------------|----------------------------|-----------------|----------------|----------------|
| # | Village | Geographic Code | Classification | Area (Hectare) |
| 1 | SIR ED DANNIYEH | 37311 | CF | 267 |
| 2 | BAHSA | | DP | |
| 3 | AASSOUN | 37313 | CF | 381 |
| 4 | BEIT JIDA | | DP | |
| 5 | MAZRAAT KETRANE | 37314 | ND | 121 |
| 6 | BQAA SAFRINE - The Village | 37317 | CF | 484 |
| 7 | BQARSOUNA | 37319 | CF | 357 |
| 8 | BEIT MOUMNEH | | DP | |
| 9 | HAQL EL AAZIMEH | 37327 | CF | 55 |
| 10 | KHARNOUB | 37335 | CF | 110 |
| 11 | HARF ES SAYAD | 37345 | CF | 129 |
| 12 | OUATIYEH | | DP | |
| 13 | MRAH ES SRAYJ | 37351 | CF | 245 |
| 14 | BAKHAAOUN | 37391 | CF | 797 |
| 15 | HAQLIT | | DP | |
| 16 | BEIT EL AARAB | | DP | |

2.2 CLUSTER TWO

Cluster two is located on the North Eastern side of region one. It includes 11 cadastral districts and covers an area of around 35 sq. Km, or 10.6% of the total Dinnieh area. This cluster is characterized by an abundance of water and the prevalence of irrigated crops, especially fruit trees such as apple, peach, apricot, plum, pear, and cherry. The cluster also houses a number of agro-food activities such as beekeeping and the manufacturing of honey and wax. It is also characterized by many natural sites such as Al Zahlan grotto (in Sertouka) and other grottos in Btermaz and Tarane (Al Bir grotto), Al Hamam valley which separates Sir and Bqarsouna from Qarsaita and Nimrine, as well as Oyoun Al Samak lake which could represent a powerful tourist attraction but is unfortunately not sufficiently exploited. Moreover, the cluster includes numerous and varied forests, including Lebanon's largest pine forest in Btermaz (reaching Tarane and Sfireh) and Sfireh's cedar forest.

Table 2: The cadastral districts, areas, and towns of Cluster two

| Cluster Two | | | | |
|--------------------|-----------------|------------------------|-----------------------|-----------------------|
| # | Village | Geographic Code | Classification | Area (Hectare) |
| 17 | QATTINE | 37315 | CF | 180 |
| 18 | SERTOUKA | | DP | |
| 19 | HAZMIYEH | 37321 | CF | 28 |
| 20 | TARANE | 37323 | CF | 204 |
| 21 | NIMRINE | 37325 | CF | 757 |
| 22 | BAKOURA | | DP | |
| 23 | BEIT EL FAQS | 37329 | CF | 66 |
| 24 | MRAH ES SFIREH | 37331 | CF | 49 |
| 25 | AIN ET TINEH | 37333 | CF | 38 |
| 26 | SFIREH | 37337 | CF | 571 |
| 27 | RAMLET EL HAMRA | | DP | |
| 28 | MAQTOUAA | | DP | |
| 29 | QARSAITA | 37339 | CF | 560 |
| 30 | BTERMAZ | 37343 | CF | 1,021 |
| 31 | QRAINE | 37353 | CF | 29 |

2.3 CLUSTER THREE

Cluster three is located in the North of Dinnieh and extends over the entire length of the Akkar boundary, which is naturally delineated by Jhannam valley. The cluster consists of nine cadastral districts and has an area of 45 sq. Km, which represents around 13.7% of the total area of Dinnieh. It is characterized by its multiple untouched natural sites and numerous rural towns. The villages of this cluster rely on woodcutting, the production of coal (especially in Jayroun and Qarne), and livestock breeding, in addition to agriculture. A homogeneous feature of this cluster is the high prevalence of poverty, the low quality of infrastructure (roads, drinking water, irrigation water, and sewers), as well as the shortage of health and education services among others. Among the natural sites that characterize cluster three are Jhannam valley (the deepest valley in Lebanon), the largest river basin which is crossed by Moussa River (one of Nahr El Bared’s tributaries), as well the cedar forests of Jayroun and Debaael and the oak forest of Qarhaiya.

Table 3: The cadastral districts, areas, and towns of Cluster three

| Cluster Three | | | | |
|----------------------|--------------------------------|------------------------|-----------------------|-----------------------|
| # | Village | Geographic Code | Classification | Area (Hectare) |
| 32 | QEMMAMINE | 37344 | ND | 375 |
| 33 | HAOUARA | 37355 | CF | 434 |
| 34 | JOURET EL MRAH | | DP | |
| 35 | DEBAAEL | 37356 | ND | 614 |
| 36 | BEIT HAOUIK | 37357 | ND | 25 |
| 37 | JAYROUN | 37358 | ND | 1,300 |
| 38 | QARHAIYA | 37360 | ND | 162 |
| 39 | AASSAYMOUT | 37362 | ND | 149 |
| 40 | QARNE | 37383 | CF | 763 |
| 41 | KFAR BEBNINE | 37395 | ND | 683 |
| 42 | SNOUBAR (KFAR BEBNINE) | | DP | |

2.4 CLUSTER FOUR

Cluster four falls on the western end of the Dinnieh region and is the closest to the Minieh-Dinnieh coast. Indeed, the cluster’s altitude never exceeds 500 meters above sea level. This cluster constitutes the main corridor of the region to the coast, via Markebta and Aazqai reaching Minieh and via the main road that goes through Kfar Habou and Kfar Chellane towards Tripoli and Zgharta villages. The cluster is shaped like a bottle neck that opens up in Dinnieh making it the point of access to most of its regions as well as the link of Dinnieh’s villages to Tripoli, the capital of the Mohafaza of North Lebanon, and the principal service center for Dinnieh residents.

Cluster four is poor in natural resources, knowing that the most common land use is agriculture and grazing. Moreover, the main farm products include grains and durum wheat, vegetables, plums, apricots, green plums, citrus fruits, and bitter orange flowers, in addition to non-irrigated crops like olives, almonds, and cactus. Non-irrigated crops are especially common in Kfar Chellane, whereas Kfar Habou specializes in olives and the production of olive oil, Aadoua grows fruits, grains, durum wheat, and vegetables (with widespread use of plastic tents), and Aazqai is known for growing citrus and bitter orange flowers.

Cluster four is characterized by a social fabric that combines original residents and Arab nomadic tribes which were granted the Lebanese nationality in 1960 and purchased land in Dinnieh (especially in Aadoua whose residents all belong to this category). Arab tribes are also present in Kfar Chellane and Aazqai and many of them migrated to the Beddawi region on the Minieh-Dinnieh coast. However, despite this diverse social fabric, social cohesion continues to face obstacles which are mainly related to the diverging social norms of the two sides.

In general, the cluster lacks the infrastructure that befits its strategic position, while its residents face a number of environmental issues, including sanitation problems in the upper villages (the absence of a wastewater treatment plant), and the presence of a garbage dumpsite in Aadoua. The cluster consists of six cadastral districts, spreading over an area of 28 sq. Km (8.5% of the total area of Dinnieh).

Table 4: The cadastral districts, areas, and towns of Cluster four

| Cluster Four | | | | |
|--------------|---------------|-----------------|----------------|----------------|
| # | Village | Geographic Code | Classification | Area (Hectare) |
| 43 | AAZQAI | 37361 | CF | 414 |
| 44 | KFAR CHELLANE | 37363 | CF | 104 |
| 45 | KFAR HABOU | 37365 | CF | 741 |
| 46 | MARKEBTA | 37381 | CF | 701 |
| 47 | AADOUA | 37382 | ND | 487 |
| 48 | RAOUDA | | DP | |
| 49 | TERBOL | 37387 | CF | 346 |

2.5 CLUSTER FIVE

Cluster five is located on the South-Eastern side of cluster one and is bordered by cluster four on the west and cluster six on the east. It has common boundaries with the qaza of Zgharta, namely in the cadastral district of Deir Nbouh. This cluster consists of three cadastral districts: Izal, Beit Zoud, and Deir Nbouh. The Izal cadastral district includes (in addition to Izal) eight villages known as “Hrouf” (such as Beit Daoud, Beit Hasna, Beit Radouane, and Beit Bakkour). The cluster is known as the “plain”, due to its flat topographical outlay whose average altitude is around 700 meters above sea level. Despite the rocky nature of the land and the shortage of water, the “Hrouf” area has always been a winter destination for the residents of the elevated villages (Bqaasafrine, Bqarsouna, and Qorsaita) and Jurd En Njas, for grazing purposes. They eventually settled in the area, built villages that carried their family names, exploited the land, and created artificial ponds to store water for irrigation.

Non-irrigated farming is the main economic activity of this community, especially tobacco, durum wheat and grains (Douraiya), and olives (Izal). Moreover, vegetables are grown in the summer, using drop irrigation from artificial ponds, using plastic pipes. The cluster covers an area of around 26.7 sq. Km (8.1% of the area of Dinnieh).

Table 5: The cadastral districts, areas, and towns of Cluster five

| Cluster Five | | | | |
|--------------|---------------|-----------------|----------------|----------------|
| # | Village | Geographic Code | Classification | Area (Hectare) |
| 50 | IZAL | 37341 | CF | 1,821 |
| 51 | BAAZQOUN | | DP | |
| 52 | BEIT BAKKOUR | | DP | |
| 53 | BEIT DAOUD | | DP | |
| 54 | BEIT HASNA | | DP | |
| 55 | BEIT RADOUANE | | DP | |
| 56 | MOULID | | DP | |
| 57 | BEIT AATMANE | | DP | |
| 58 | DOURAIYA | | DP | |
| 59 | BEIT ZOUD | 37349 | CF | 143 |
| 60 | BEIT KANJ | | DP | |
| 61 | MELHA | | DP | |
| 62 | DEIR NBOUH | 37377 | CF | 705 |

2.6 CLUSTER SIX

Cluster six is located on the South-Eastern side of Dinnieh, facing Jurd En Njas, i.e. south of cluster five and separated from it by a river that merges several tributaries flowing from the slopes of Mount Makmel. The cluster is contiguous to the qaza of Zgharta and linked to it by social ties and topographic homogeneity. On the other hand, the cluster's ties to the other Dinnieh clusters are weak because of the failure to implement the various road projects that were supposed to connect this cluster to Izal and Bqaasafrine.

Cluster six consists of eight cadastral districts and covers an area of 21.7 sq. Km, which represents around 6.6% of the total area of Dinnieh. It is worth noting that this cluster includes five villages whose residents are of the Maronite confession. It is also characterized by a high propensity toward internal migration (especially towards Zgharta) and external migration (especially to Australia). The cluster was once known for vine growing and arak production; however, these activities have all but disappeared except in Zghartaghline in which viniculture continues to exist. Despite the fact that the lands that were deserted by the migrating residents are generally left uncultivated, crops such as fruit trees, grains, and vegetables (especially potatoes) continue to be grown in Karm El Mohr and grains and durum wheat are grown in Aaymar.

The most prominent natural sites in cluster six are the pine forest of Aaymar, the cedar forest of Karm El Mohr, and valonia oak forests between the two villages of Behouaita and Karm El Mohr.

Table 6: The cadastral districts, areas, and towns of Cluster Six

| Cluster Six | | | | |
|-------------|--------------------|-----------------|----------------|----------------|
| # | Village | Geographic Code | Classification | Area (Hectare) |
| 63 | KARM EL MOHR | 37347 | CF | 845 |
| 64 | BTEHLINE | | DP | |
| 65 | CHALOUT | | DP | |
| 66 | AIN ES SOFSAF | | DP | |
| 67 | AAYMAR | 37367 | CF | 333 |
| 68 | MGHARET ECH CHEIKH | | DP | |
| 69 | ZGHARTAGHRINE | 37369 | CF | 209 |
| 70 | BEHOUITA | 37371 | CF | 311 |
| 71 | KAFF EL MALLOUL | 37373 | CF | 218 |
| 72 | JARJOUR | 37375 | CF | 61 |
| 73 | BECHHARA | 37379 | CF | 112 |
| 74 | FIRJEH | | DP | |
| 75 | MAZRAAT EL KREYM | 37389 | CF | 81 |

2.7 DINNIEH'S MOUNTAINOUS ZONE

The mountainous zone extends over the length of the common boundary with the qazas of Hermel and Bsharreh, in addition to a small part of the Zgharta common border. It is worth mentioning that the new road that links Sir to Hermel crosses this area. The mountainous zone covers the slopes of Mount Makmel which includes the highest peak in Lebanon (Qornet Saouda which stands 3,088 meters above sea level). It also includes the entire region whose altitude exceeds 1,500 meters above sea level. The region has a homogeneous topography in both Jurd Mrebbine (north) and Jurd En Njas (south), reaching the outer limits of the village of Bchennata. These cadastral districts are all large and vast, especially Bqaasafrine (whose jurd falls within the scope of the mountainous zone) which is the largest district in Dinnieh, and the fourth largest in Lebanon (out of a total of 1,623 cadastral districts). Indeed, the mountainous zone represents slightly less than half of the area of Dinnieh (43.6%).

This zone includes a large number of unproductive lands due to the uneven topography of the region, especially in the folds of the Mount Makmel slopes. However, these slopes, which extend up to Jurd Mrebbine on one side and Bchennata on the other, are for the most part considered as the best lands for grazing in the summer, after the thaw, because of the density of grass and wild flowers.

The mountainous region includes a number of important natural sites, including the cedars forest of Dinnieh, Mrebbine's forest which contains around 7,000 trees of more than 500 different species, and the forest of Jurd En Njas which contains around 500 cedar trees.

Table 7: The cadastral districts, areas of Mountainous Zone

| Dinnieh Mountainous Zone | | | | |
|---------------------------------|-------------------------------------|------------------------|-----------------------|-----------------------|
| # | Village | Geographic Code | Classification | Area (Hectare) |
| 76 | OUADI EN NJAS - The Mountain | 37317 | DP | 9,200 |
| 77 | BCHENNATA | 37359 | CF | 1,851 |
| 78 | AFQA | | DP | |
| 79 | BTELLAIYEH | | DP | |
| 80 | MREBBINE | 37385 | CF | 3,319 |



**SECTION THREE:
SITUATION
ANALYSIS**

1. HISTORICAL BACKGROUND

Dinnieh was inhabited since prehistoric ages, knowing that the mission of the “General Department of Archeology” of the Ministry of Culture has found in the Zahlan Grotto (located in the region of Qattine) a skeleton that is believed to be from the Neolithic age or the new stone which goes back to the period between 9500 years BC and 6000 B.C.⁴.

Historical ruins found in Dinnieh demonstrate the passage of several cultures in the region such as the Phoenician ruins found in the area. In addition, the names of some villages have Semitic roots which demonstrate their ancient origins. In addition Dinnieh was mentioned in Pharaonic manuscripts and the Torah. Archeological sites which are found almost everywhere in the area, are small and cannot be compared to the sheer size of Baalbek, Anjar or Byblos. The residents of Dinnieh believe that the area is built on undiscovered archeological sites and are waiting for explorative missions to uncover them.

The history of Dinnieh is an integrated part of the history of Lebanon and the region. Over the decades, the rugged topography of Dinnieh, just like other mountainous areas in Lebanon, constituted a safe haven for different groups that have sought refuge in its high mountains. According to historians, the demographic composition of Dinnieh changed whereby the religious beliefs of the residents changed following the Mamluks victory over the crusades and their expulsion out of the region in 1289.

The history of Dinnieh holds several determinants of its actual situation from the Mamluk and the Ottoman eras as they shaped its geographic boundaries, demographic composition, administrative linkage to Tripoli and other economic characteristics of the area.

A woman called Aicha Al-Bashnatiya is a historical symbol of the region as she came with her men from the village of Bishnata.

⁴ New findings put the beginning of the Neolithic culture back to 10700 B.C.

Table 8: The main archeological sites by village

| Cluster | Village | Archeological Sites |
|------------------|-----------------|--|
| Cluster One | Sir | Traditional houses and palaces / Mills |
| | Aassoun | Al Aaja'ibiya church (Crusaders) / Aa'isha Castle / Bzizat Cave |
| | Mazraat Ketrane | Yaaqoub Prophet shrine |
| | Bqarsouna | Old Cemeteries / Cemetery of Al Sifa |
| | Bakhaaoun | Bakhaaoun Castle (Fakhr Eddine Tower) - 1618 / Bakhaaoun School (Ottoman) / Old village |
| Cluster Two | Tarane | Windmill |
| | Nimrine | Gold cave / Roman Cemeteries / Islamic Mihrab (niche) / carvings on rocks |
| | Btermaz | Namroud Castle (Roman) / old monastery / alabaster cemetery |
| | Sfireh | Houssen Castle (Roman) |
| Cluster Three | Qemmamine | Salasel Castle |
| | Debaael | Ancient wells |
| Cluster Four | Aazqai | Caves with ancient drawings (Silsila cave / Birket Al Hamra) |
| | Kfar Chellane | Well-constructed by the Australian Army / three barricades (WWII) |
| | Kfar Habou | Bridge of arches / church (Crusader - 400 years old) / Ain Al Qabou / Cemeteries (Phoenician and Roman) |
| | Aadoua | Hala Monastery (old) |
| Cluster Five | Douraiya | Roman castle / cemeteries |
| Cluster Six | Karm El Mohr | Aa'isha Castle (ruins - 2,400 m above sea level) |
| | aaymar | Cemetery village / Roman columns / caves / Phoenician wells / Saint Sarkis Monastery / Al Qantara (arch) |
| Mountainous Zone | Mrebbine | Old ruins / cemeteries / carvings on rocks / Haql Al Aamoud site |
| | Bchennata | Aa'isha Bechnatiya Castle |

SWOT Analysis:

| Hisotrical Background | |
|--|---|
| Strengths | Weaknesses |
| <ul style="list-style-type: none"> • Human settlements inhabited the region since the ancient ages in history. • The history of Dinnieh summarizes the history of Lebanon and the neighboring countries. • Dinnieh's history was enriched by different civilizations, peoples and religious beliefs. • A variety of archeological sites exist in many locations throughout Dinnieh. | <ul style="list-style-type: none"> • The lack of studies and references concerning the history of Dinnieh. • The excavation of a small portion of the archeological sites, whereas most of it remain unexplored. • The archeological sites were subjected to vandalism and theft actions. • The archeological sites are scattered among distant places. • Most of the archeological sites are small in size, and do not compete with other famous sites like Baalbak, Anjar and Jubeil. |
| Opportunities | Threats |
| <ul style="list-style-type: none"> • The evidences of many possible new archeological discoveries. • The possibility of utilization of the preserved archeological structures (Sfireh and Namroud Castles). • The long term prospects of establishing projects concerning historical tourism and publishing information. • The openness towards a historical approach from the point of view of cultural and religious pluralism. • Making use of the historical myths regarding female idols, to motivate the participation of women in the social activities, including their political and military role (resisting occupation). | <ul style="list-style-type: none"> • The negligence of the state (Ministries of Tourism and Culture). • The region being a remote area from the center (the capital). • The need for a long term program of archeological sites excavation and historical researches. • The requirement of huge investments in return of fewer direct revenues. • The lack of awareness of the importance of history in identity formation, and of the significance of the humanitarian and cultural aspects of the archeological ruins. • The poor conditions of the road network in the region (the isolated areas, narrow streets that impede the bus accessibility, dangerous roads, curves and slopes). • The possibility of mal-use of the historical events in order to revive sectarian hostilities, ethnical discrimination and conflicts between different regions and families. |

2. DEMOGRAPHIC CHARACTERISTICS

2.1 MOBILITY OF POPULATION

The region is characterized by high levels of population mobility due to different reasons and typified in several trends and dimensions. The types of population mobility are: Permanent migration, temporary migration, migration to the outside of Dinnieh, migration within Dinnieh, and the inflows of summer residents.

In comparison with large vast migration flows in Lebanon's contemporary history (since Independence) from rural to urban areas (more than 86% of current population in Lebanon are residents of rural areas), Dinnieh has preserved a very high proportion of its registered population. Around half of Dinnieh residents are still permanent residents in their towns of origin (town of registration).

The region of Dinnieh comprises about 103'000 registered residents of which 70% live permanently in its geographic area, even if outside their towns of origin. This is due to population mobility (internal migration) within the towns of the region and to the formation of towns inhabited all year long such as Harouf, Izal, Beit Zoud, Mazraat Katran, Jiroun, KorenJiroun, and other. The number of permanent residents in Dinnieh (during winter and summer) reaches around 70'000 residents. Based on the collected data, around 30% of total Dinnieh population has migrated from their towns of origin to areas within or outside Dinnieh.

Moreover, around the third (36.9%) of Dinnieh's population has migrated to foreign countries whether on a permanent basis through their acquisition of another nationality or on temporary basis⁵ seeking work or better income. However, the number of residents in the summer season increases of more than 57% and reaches around 112 thousands. This can be explained by the return of a large number of internal and external migrants to their village of origin during the summer season and the region being the summer destination especially for the residents of Tripoli and other regions of the north.

People originally from Dinnieh outnumber registered residents for two reasons: Firstly, the transfer of the town of registration to areas outside Dinnieh and the non-registration of wives and children of those who have permanently migrated.

⁵ The migrants who have preserved their records in their towns of origin constitute around the fifth (21%) of the total population of Dinnieh.

Table 9: Dinnieh population (by cluster)⁶

| Dinnieh Region | | | | | | | |
|----------------|-----------------------|----------------------------------|--------------------------------------|-------------------------|-------------------------|------------------------|-----------------|
| Cluster | Registered Population | Permanent Residents - Registered | Permanent Residents - not Registered | Residents during Winter | Residents during Summer | Moved to other Regions | Migrated Abroad |
| One | 39,802 | 17,835 | 1,570 | 19,230 | 45,335 | 9,705 | 12,200 |
| Two | 32,353 | 15,420 | 390 | 15,810 | 26,147 | 13,699 | 3,160 |
| Three | 8,807 | 4,170 | 2,235 | 5,905 | 8,215 | 4,825 | 420 |
| Four | 11,067 | 7,400 | 4,900 | 12,300 | 12,350 | 1,230 | 2,445 |
| Five | 5,361 | 4,050 | 11,425 | 15,350 | 15,550 | 730 | 725 |
| six | 5,410 | 2,195 | 80 | 2,275 | 3,950 | 1,140 | 2,160 |
| Total | 102,800 | 51,069 | 20,600 | 70,870 | 111,547 | 31,329 | 21,110 |

2.2 POPULATION GROWTH

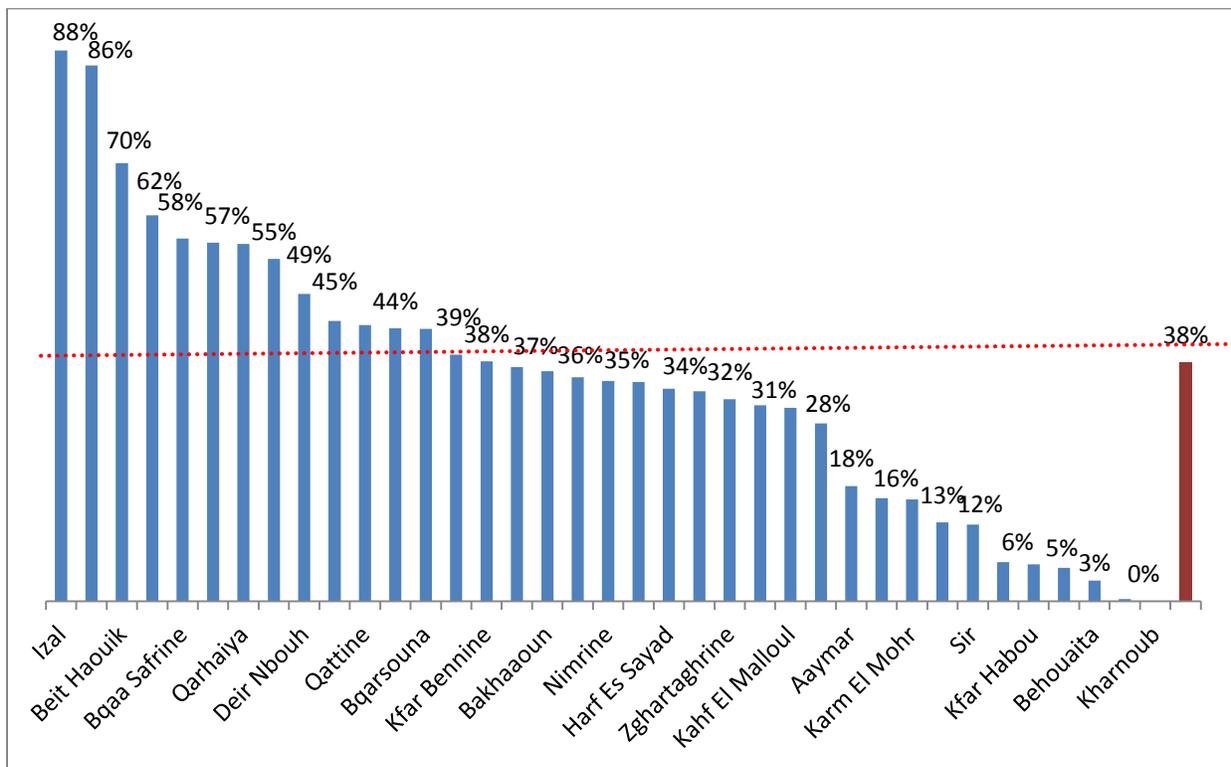
Dinnieh is characterized by a high population growth. The comparison between the 1996 and 2010 registrar records shows the increase of registered residents increased from about 72'900 to 100'700 or 38.2% in a period of 15 years.

High population growth rates are accompanied with high fertility rates which explain the large size of households in the area. The average household in Dinnieh is composed of 5.9 members (whereas the average household size is of 4.74 members in Mount Lebanon governorate and 4.27 on the national level)⁷. The average size of household differs from one cluster to another with a minimum of 4.8 members in cluster six which covers the area known by "al-Mazareh (the farms)" or "the five villages" and a maximum of 7.9 members in cluster five which includes Isal, Harouf, BeitZoud and DeirNabouh.

⁶ For further details concerning the demographics of each village, please refer to tables within the Appendices (pages 125-129).

⁷ CAS, 2006. *The National Survey of Household Living Conditions 2004*, MOSA Project "Capacity Building for Poverty Reduction".

Graph 1: Population growth rates (Registered) according to village



2.3 POPULATION DENSITY

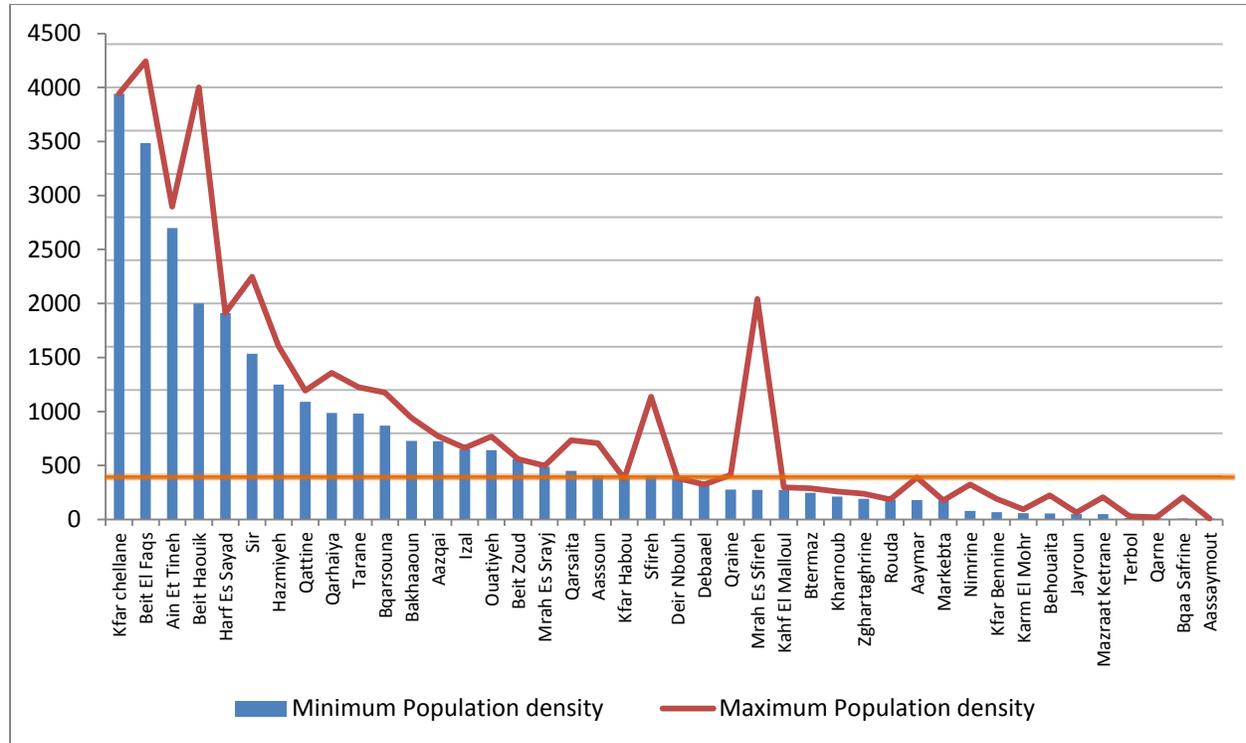
For the purpose of this study, the report refers to two levels of density taking into account the high levels of population mobility in Dinnieh and therefore the fluctuation of the number of residents according to the different seasons. The two levels are:

- 1) Minimum population density: calculated on the basis of the minimum number of residents in each village (mostly during winter season)
- 2) Maximum population density: calculated on the basis of the maximum number of residents in each village (mostly during summer season)

On the region level, Dinnieh has a low density rate of 215 inhabitants per square kilometer which is lower than Mount Lebanon with 389 inhabitants per square kilometer as well as the national density rate of 374 inhabitants per square kilometer. This indicates the presence of large uninhabited areas which can be used for the extension of built areas necessary with continuous population growth as well as for the selection of suitable locations for future development projects.

Research findings show that density rates fall below 400 inhabitants per square kilometer in 22 CF on the basis of minimum density. See Figure 2 below:

Graph 2: Population Density according to village

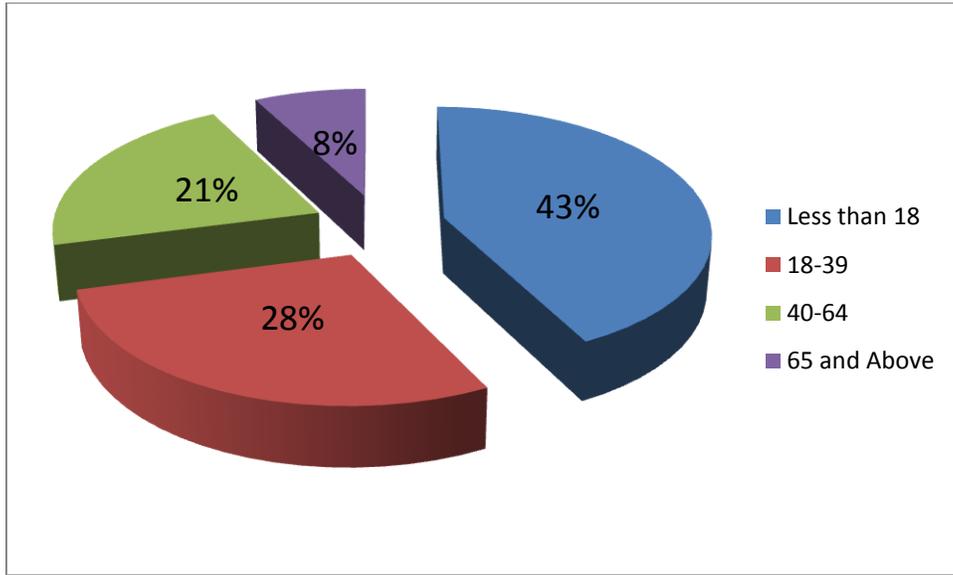


2.4 THE DEMOGRAPHIC COMPOSITION ACCORDING TO AGE CATEGORIES

Dinnieh is a young region whereby age categories below 18 years old constitute around 42.5% of total population and those below 40 years make up about 70% of total population according to local authorities. Recent voters' registries in 2010 show the distribution of Dinnieh residents under two ages categories: below or above 21 years of age. People below 21 years constitute around 44% of total population (total number of voters is 57'539 which constitutes around 56% of total registered residents). These figures are slightly higher than the age distribution of population on the national level. According to "Living Conditions of Households"⁸, people below the age 20 in Lebanon constitute around 37.2% of total population in 2004 while those below the age of 40 make up around 69%, which is almost the same for Dinnieh.

⁸ CAS, 2006. *The National Survey of Household Living Conditions 2004*, MOSA Project "Capacity Building for Poverty Reduction".

Graph 3: Population distribution by age



SWOT Analysis:

| Demographic Characteristics | |
|--|--|
| Strengths | Weaknesses |
| <ul style="list-style-type: none"> • High population growth rates. • Increase in young age group segments proportions (young society). • The attractiveness of some villages of cluster one for tourists during summer vacation. • The role of tourists during summer vacation in boosting the economic activities (growing demand, increase in consumption and expenditure, stimulation of real estate transactions). • Population increase during summer season. • Most of the emigrants have maintained relations with their relatives and native villages (remittances, visits, real estate purchases and house building, donations, creating new business and commercial opportunities with foreign countries). • The influx features for hosting new inhabitants of clusters four and five. | <ul style="list-style-type: none"> • The rural characteristics of most villages. • Most of the villages have outflux population mobility features. • Less permanent residents than registered population. • Big amount of household members affecting their living conditions. • Gender imbalances due to migration, and weak involvement of women in labor market. • Local entrepreneurs invest outside the region. • Limited foreign investments in Dinnieh. • Some emigrants have lost contact with the region. • Some emigrants have lost interest in registering their marriages and newborn children at their native country. • High rates of internal population mobility among cluster three natives. • High rates of external migration among cluster six natives. |
| Opportunities | Threats |
| <ul style="list-style-type: none"> • Success stories of attracting tourists that can be applied to other villages. • The opportunity of employing youth capacities and know-how (with correlation to improving education). • The existence of uninhabited places or villages with low population density, to cover the future population growth. • The possibility of utilizing the recourses, experiences and relations of the emigrants. • The opportunity of employing female working forces in future projects. | <ul style="list-style-type: none"> • Active population mobility outside Dinnieh (inside and outside Lebanon). • Low capacity to employ surplus labor. • High population density in small size villages. • Unattractive environment for investments. • A probable tendency towards social disorders due to gender imbalances, due to the marginal role of women and its influence on the phenomena of female idleness and dependency. |

3. DWELLINGS AND HOUSING

The construction sector in Dinnieh is currently growing which is typical in a region with increasingly high population growth rates. A share of the demand comes from the population who emigrated from Dinnieh. In the past years, construction activity also increased in touristic towns, especially Bekaa Sefrine which population increased of 5 folds since the beginning of the 1990's. Knowing that about 15% of total dwellings in Dinnieh are offered for rent in the summer season, this proportion shows the importance of summer season in the economic and social activity of the region.

The number of dwellings in Dinnieh is estimated at around 28'000 dwellings. The first cluster comprises about half of the dwellings (48%). In general, new buildings have considerably increased in most regions of residential character (Kfarchalan, Izal, DeirNbouh and other).

Only half of the dwellings are considered to be in a good condition, which most likely include the new buildings and those to be rented. Buildings in a bad condition constitute 18% of total dwellings in the area and are concentrated in the third and fifth clusters where about quarter of the dwellings are in a bad condition, which reflects the poor socio-economic conditions of their residents.

Despite the absence of a construction pattern in the area, most villages and towns seem to grow in a linear way were they spread alongside the main roads of villages. In neighboring villages – especially those located at the center of Dinnieh and around Sir – buildings are found next to each other and are almost collated without land or agriculture areas to separate them. This construction trend has participated in the chaotic increase of construction whereby in certain villages and towns, the enlargement of public roads becomes difficult. However, the villages located away from the center are characterized by large spaces, mountain typology and roads contouring valleys. The area between one village and another becomes wider and the region becomes rural whereby buildings are well-spaced and surrounded by agricultural lands.

Old houses are becoming less common and are replaced with buildings of three to four stories, which supports the enlargement of households and the creation of new ones. In certain villages, multi-stories buildings of eight and ten floors are now common, especially in large towns attracting summer visitors such as Sir, Bakhoun and Assoun.

“Construction planning is below the required level and lacks creative plans in harmony with the esthetic taste of tourists”

The legal framework regulating construction activities in Dinnieh suffers from several setbacks, which negatively affects the local real estate market and hinders demand to a certain extent. The major setback are as follows:

- Incomplete land cadaster in different parts of Dinnieh
- Lack of property deeds which are replaced by owner certificates issued by the “Mukhtar” and known by formal notification (*elem wa khabar*)
- Absence of inheritance transaction registration, knowing that a large number of residents do not register due to the scattering of property on a large number of inhabitants of the same family, which makes it lose its value
- Confiscation of land lots and public property violations
- The lack of construction permits for the above mentioned reasons as well as the increasing costs of construction permits
- Owners of construction projects tend to violate regulations pertaining to the proportion of land allowed for construction and the height of stories. Construction Law sets the development ratio at 5% in touristic areas and the allowed height at one story or 4 meters. In other areas the development ratio is between 25% and 50% and the height is of three stories.
- The administrative problems and elevated costs of the redressing of construction violations discourage the redressing of violations.

The findings of the fieldwork show that one building out of five in Dinnieh (around 21%) is licensed. The problem is exacerbated in the third cluster of the area where none of the buildings are licensed.

SWOT Analysis:

| Dwellings and Housing | |
|--|--|
| Strengths | Weaknesses |
| <ul style="list-style-type: none"> • The flourishing construction activities in general, and within touristic classified towns in particular. • The existence of a significant portion of homes designated for renting (especially in cluster one). • The village of Bqaa Safrine may be considered as a model of a well-organized and a beautiful neighborhood that can be imitated elsewhere. • The wide spread of multi-story investment buildings in some regions, illustrates the rising demand on real estate. • The existence of some buildings (old and new) that are considered as landmarks in the region. • The increase in real estate prices in few regions especially in prime locations (on the main road and in selected neighborhoods). | <ul style="list-style-type: none"> • Lack of regulatory framework for real estate ownership and construction, or not being aligned with the conditions of the region. • The big families and small real estate properties affect the registration of inheritance transform of ownership cases. • The existence of illegal buildings, either those that did not issue permits or the ones that violate the construction regulations. • Conflicts over land ownership. • The local authorities being inept at controlling the construction violations. • The scarcity of aesthetic architectural designs. • The existence of a large proportion of houses in bad conditions (especially in clusters three and five). • Concentration of houses in cluster one. • The formation of villages in a linear settlement model, around the main roads (especially in clusters one and two). • Hindering the aesthetic view of the region through constructing multi-story buildings. • The lack of entertainment facilities. |
| Opportunities | Threats |
| <ul style="list-style-type: none"> • Real estate development opportunities occur through the demand created by emigrants. • The possibility of replicating the urban development model of Bqaa Safrine. • The existence of large areas of unexploited land that may be used for future expansion plans to reduce the population density of some villages. • The positive influence of developing infrastructure networks on the value of real estate and triggering the demand. | <ul style="list-style-type: none"> • The existence of unsurveyed land due to the negligence of the state. • The absence of urban planning (zoning and land uses). • Objective foundations exacerbate construction violations. • Overpriced construction permits when compared to property values. • Costly arrangements for settling construction violations. • The lack of vision and long term urban planning parameters. • The bad social status of residents and its effects on their housing conditions. • Corruption and bribery of controlling authorities over construction malpractices. |

4. INFRASTRUCTURE

4.1 THE ROAD NETWORK

Dinnieh witnessed the construction and expansion of roads during the past two decades. Among the most important implemented projects during the last decade (2000-2010) are:

- 1) Rehabilitation of the main road Tripoli – Dinnieh. The road between Al Kobba and the end of Marah al Sarraj has now a width of 10 meters. The bridge of Wadi Al Rihani was enlarged. The road between Marah al Sarraj and Kfarbenin remained the same. The project cost was more than USD 7 million.
- 2) Rehabilitation of the road between Beit al Faks – Karssita – Sahet Nemrin.
- 3) Construction of the road Mrah al Sarraj – Bakhoun – JisrHaklit – Jisr al Hazmieh: This is a main road of 12 meters with several connections and the bridge Bakhoun- Taran. The road was inaugurated in 2005 (The section of the road between Taran and Jisr al Hazmieh was completed and rehabilitated in 2009).
- 4) The construction of the road Sir Dinnieh – Jbab al Homr – al Hermel: The cost of the project was of USD 50 million. This is a main road of 62 Km length and 7 meters width.

Despite the development of the road network in Dinnieh, the situation is far from ideal and suffers from several gaps. It appears that 13.2% of households in Dinnieh are not linked to the public road network. The situation is worse in the third and second clusters (especially in Dabaal, Qattin and Nemrin). Moreover, 14% of roads (main and secondary) need to be paved. The construction of roads without pavement material seems to be common in both clusters five and six where unpaved roads constitute the third (30%) of roads.

According to local authorities, a quarter of the roads in Dinnieh (23%) are in good condition while 45% of the road network is in poor condition. The first cluster comprises the highest share of good roads (38%) while two third of the roads in the fourth cluster (64%) are in bad condition.

A study on the pavement priority of roads prepared by the Union of Municipalities of Dinnieh provides the list of 60 roads in need of pavement at a cost of LBP 4.5 billion (or the equivalent of more than USD 3 million). In general, the road network of the region suffers from several problems among which: wrong laying of pavement material (absence of maintenance), lack of pavement, narrowness of roads, and absence of road safety equipments (the absence of street lining, lighting and signage, mirrors on road turns, road safety barriers, sidewalks, and retaining walls). However, one of the most important impediments to development in some parts of Dinnieh resides in the lack of connection between regions and their linkage to the road network (especially for cluster six) as if they are completely disconnected from the remaining clusters.

4.2 THE SEWAGE NETWORK

The region of Dinnieh is deficient in sewage networks, which are only available in half (52%) of the villages or 22 of them. The situation is aggravated in some residential agglomerations whereby only half of the villages of the fourth cluster are serviced (3 towns), the third of the fifth cluster (only one village) while the entire third cluster is not serviced.

The existence of a sewage network in a specific village does not necessarily imply that all its dwellings are serviced. Therefore the sewage issue is exacerbated knowing that even in serviced villages, the sewage network only covers three quarter of the dwellings. On a general level, only half of total Dinnieh dwellings (48%) are serviced by sewage networks.

Based on the assessment of local authorities, the third of sewage networks in Dinnieh are in good condition whereby clusters five and six lack any good sewage networks. Around quarter of the networks in all Dinnieh are considered to be in poor condition. Nevertheless, local authorities consider half (45%) of sewage networks in the region to be acceptable. The most important problems affecting sewage networks consist of their age, the wearing out of certain parts and the lack of maintenance or rehabilitation especially that parts of the networks are now aboveground. The spreading out of construction and population growth negatively affects the sewage system in the area, which have been initially established with limited capacity.

In the absence of sewage networks in half of the villages of Dinnieh, sanitary pits are built under the buildings foundations, despite the additional costs of the works. In the absence of sewage networks and sanitary pits, sand pits are built in the back of dwellings and covered by plastic sheets. A certain number of houses direct sewage water around the houses, towards cultivated lands or even roads.

In all cases, the core problem resides in the absence of sewage water recycling plants. The drainage of sewage water in valleys, rivers, the outskirts of villages and irrigation canals constitute a substantial damage to the environment affecting the soil and the underground. Sewage water damages agricultural products, dries up green trees, and spreads weeds. The pollution of irrigation water is therefore exacerbated knowing that most of rivers polluted by sewage water are ramifications of the Bared River which is of a strategic importance to the region. Therefore vital sites of touristic and leisure potential (including the Lac of Ouyoun Al Samak) located on the borders of the Bared River are negatively affected. Moreover, sewage water spill out from sanitary pits and pollutes groundwater and drinking water.

One of the most important projects for the area is the “establishment of a recycling plant and sewage water networks in Bakhoun and neighboring villages”. The Council of Development and Reconstruction is studying the project and estimates its cost at USD 18.8 million. The timeframe of the project is estimated at two years and four months. The project is supposed to cover 9 villages. In addition, the Union of Municipalities of Dinnieh holds a feasibility study for a sewage network and sewage water recycling station at the level of the entire region of Dinnieh, which is estimated to cost between USD 37 and 40 million.

4.3 POTABLE WATER

It is believed that Dinnieh, and Mount Makmal specifically, compasses the largest ground water reservoir in the Middle East. Nevertheless, a large number of villages and houses suffer today from the lack of drinking water and are not linked to drinking water networks. According to the Council for Reconstruction and Development, demand on drinking water in the region in 2019 is estimated to reach around 26,500 cubic meter of water daily. However, a study co-prepared by the Ministry of Energy and Water and Dar al-Handassa in the beginning of the 1980's, estimated that the Zahlan source reaches, at its minimum level, 30'000 cubic meter of water daily.

Public potable water networks are available only in 37% (16 villages) of villages and towns of Dinnieh while unfinished networks are available in about 21% of villages (9 villages). About half of Dinnieh (42% or 18 villages) lacks potable water networks. Also, it appears that even in serviced villages, not all houses are linked to the network. The public drinking water networks cover about 62% of total dwellings in Dinnieh.

Public water networks are facing several problems. Half of the serviced villages are linked to networks in poor condition (according to the assessment of local authorities). The networks are considered to be in an acceptable condition in the fifth of villages only (19%) and in good condition in the third of villages (31%). It is to be noted that the networks are in a poor condition in all the villages of the second, third and fifth cluster.

Between 1996 and 2001, the Ministry of Energy and Water installed drinking water networks in Dinnieh. The project was not completed probably because the networks were not linked to the sources of water (springs and containers) or because the main network was not linked to the dwellings of the area. The Council for Development and Reconstruction is currently working on completing the project and rehabilitating the networks that were installed ten years earlier and which have eroded before their usage. These interventions are lost opportunities whereby the high additional expenses are spent to rehabilitate infrastructure that has not been initially used. These interventions would have been more beneficial to the development of the area if they had been implemented without delay.

The CDR is currently studying the project of "Water systems rehabilitation in Mennieh-Dinnieh", estimated at USD 7,5 million, and aims at completing the first phase of the project. The project should be completed by 2019 and consists of the exploitation of ten large springs and four artesian wells and the provision of 37 water containers of which two containers equipped with central pumping stations. The total capacity of these tanks is estimated at 10'500 cubic meter. The project comprises also the installment of six main water pump canals and the linkage of drinking water networks to water sources and dwellings of the targeted villages.

SWOT Analysis:

| Portable Water | |
|--|--|
| Strengths | Weaknesses |
| <ul style="list-style-type: none"> • Significant enhancement in infrastructure networks during the past couple of decades. • The best quality of infrastructure networks is available in the central cluster one. • Improvement in connecting the region to neighboring Kazas (the main road to Tripoli, Hermel). • Most of the residents are aware of the main environmental issues and their causes | <ul style="list-style-type: none"> • Incomplete infrastructure projects (potable water networks). • Delay in executing some projects (waste water treatment plant), and the impediment of others (Brissa Dam). • Imbalanced development of infrastructure between different clusters. • Most infrastructure facilities require maintenance and development. • Insufficient water supply (potable). • The waste collection and waste water systems cause substantial damages to environment and public health. • The lack of proper infrastructure facilities (roads, electricity, waste collection and waste water systems) to induce the tourism sector. • Inadequate road network connectivity between various regions of Dinnieh. • The lack of electricity generators allocated for public subscription. • Weak cell phone transmission in some areas. |
| Opportunities | Threats |
| <ul style="list-style-type: none"> • Future infrastructure development projects are in the pipelines. • The opportunity of exploiting the rich water resources of the region. • The possibility of producing electrical energy through renewable sources and clean energy (flowing water and wind) – it requires specialized technical studies. • The upcoming waste water treatment plant creates the opportunity to enhance the environmental conditions and the prerequisites for developing agriculture (provide water for irrigation, fertilizers). | <ul style="list-style-type: none"> • Minimal exploitation of water resources. • Power outages in touristic classified towns. • Providing low electric tension (80-100V). • The bad conditions of the infrastructure affecting the quality of life, environment, business, agriculture and tourism. |

5. EDUCATION AND TEACHING

The region's illiteracy rate declined to about 10% of the total population (compared to 8% in North Lebanon and 8.4% at the national level⁹). Illiteracy is more present specifically in the fifth cluster (25%). In general illiteracy is concentrated at high age categories particularly among women.

Nevertheless, the largest part of the population has low educational attainments whereby around 42% of residents did not reach intermediate levels, especially at the third (69%) and the fifth (64%) clusters.

According to MEHE statistics¹⁰, Dinnieh comprised 72 schools¹¹ during the academic year 2009-2011, distributed over 44 villages which fall under 37 CF. The third of these schools (61%) are concentrated in the first and second clusters (28 and 16 schools respectively), knowing that half of Dinnieh's population live in these clusters during the winter season.

Regarding the levels of education, Sir Dinnieh kindergarten is the only one in the region. There are 17 primary schools and 41 intermediate schools (59% of the schools in the region are complementary schools). Dinnieh contains ten secondary schools in addition to three vocational and technical education establishments.

Out of the schools in the region, 19% are private institutions and 81% are public. The private schools are concentrated in the first cluster with 61.5% of private schools (8 schools). Private schools are completely absent in the third and fourth clusters.

The total number of students is estimated at 14'000 students distributed in the different schools of Dinnieh¹². Public schools comprise 75% of total students while private schools cover the remaining 25% of students.

Female students make up 55% of total students in the regions compared to 45% of males. The percentage of females rises to the third of students at the university level. It is to be noted that the participation of females (as percentage of total enrolled) increases with the increase of the educational level.

The increase of the number of private and public schools in Dinnieh constitutes a positive factor towards the increase of job opportunities and the improvement of socio-economic conditions of residents.

⁹ CAS, 2006. *The livelihood conditions of households 2004*, *Op.cit.*

¹⁰ MEHE, The guide to public schools 2009-2010, available online: http://www.crdp.org/CRDP/Arabic/ar-statistics/a_schoolguide.asp

¹¹ Fieldwork identified the closure of four schools (The public school of al-Kharnoub (mixed), the public school of Qorn Jiroun (mixed), the public school of Kahf al-Malloul, and the public school of Fieldwork identified the closure of four schools (The public school of al-Kharnoub (mixed), the public school of Qorn Jiroun (mixed), the public school of Kahf al-Malloul, and the public school of

¹² According to the fieldwork conducted on the statistical abstract for the academic year 2010-2011; According to the MEHE statistics for the academic year 2009-2010, there are 13,290 students.

However the education sector still faces impediments that hinder its development:

1. Systems and curriculum
 - ✓ Outdated traditional curriculum
 - ✓ The system of automatic promotion
 - ✓ Poor teaching of foreign languages
 - ✓ The lack of attention to persons with special educational needs
2. Availability of schools
 - ✓ The absence of a balanced school distribution per educational levels
 - ✓ The lack of balanced school distribution per regions (the concentration of schools in the first and second clusters)
 - ✓ The lack of balanced distribution of private and public schools (limited number of private schools)
3. School buildings
 - ✓ Buildings in poor conditions
 - ✓ Lack of adequate facilities for school buildings
4. Lack of equipments
5. Educational and administrative bodies
 - ✓ Poor distribution of teachers
 - ✓ Lack of specialized capacities
 - ✓ Contracted teachers
 - ✓ The hiring of teachers and administrative staff from outside the region
 - ✓ The poor management of teaching staff trainings
6. The absence of extra curriculum activities

SWOT Analysis:

| Education | |
|---|---|
| Strengths: | Weaknesses |
| <ul style="list-style-type: none"> • Significant increase in number of educational institutions of all types (especially the secondary and vocational ones). • Increasing number of students. • Expansion of teaching staffs. • Rise in the participation of females in the scholar system (students and teachers). | <ul style="list-style-type: none"> • The concentration of teaching institutions in clusters one and two. • School capacity is low in comparison to the needs of local community. • Unbalanced distribution of teachers amongst different schools and villages. • Small share of private schools. • High recruitment of contractual teachers. • Reliance on teaching and administrative staffs from outside the region. • Lack of specialized and qualified teachers (foreign languages, arts). • Low caliber of foreign languages tutoring. • Most of the schools rely on French instead of English as a basic language. • Poor conditions of school buildings, facilities and equipment. • Delays in execution of public projects. • School drop-out is widely spread. |
| Opportunities | Threats |
| <ul style="list-style-type: none"> • Existence of important future projects. • Rising proportion of educated population. • Increasing weight of people with high education. • High appraisal and fine perception of the importance and role of education. | <p>:</p> <ul style="list-style-type: none"> • Outdated school curricula. • University students have to move outside Dinnieh or even to travel abroad to get their high education. • Lack of specialties and vocational training programs that correspond to the development of rural areas and the agricultural activities. • Economic and social conditions that aggravate the school drop-outs and child labor. • The state budget for enhancing the educational system is limited. • Poor teachers' training and evaluation systems. |

6. HEALTH AND HOSPITALIZATION

The health sector in Dinnieh is unable to provide basic medical services to residents despite the large number of specialists, doctors, nurses available in the region. For instance, most doctors of Bakhoun, around 80 doctors among which two well-known neurosurgeons, work in the hospitals and private clinics of Tripoli. Meanwhile, the residents of Dinnieh, especially the poor ones, tend to rely on medical treatments given by pharmacists and do not refer to specialists unless they are not cured by pharmacists' prescriptions. In addition, midwives still give birth to a large number of children in Dinnieh. It is to be noted that the public hospital in Sir, located in Aassoun, was inaugurated only ten years ago, in 2002.

At some point, Dinnieh witnessed the establishment of medical centers in the main towns of the area. However, the creation of healthcare centers and more importantly the establishment of a hospital in the region, led to the decline of the role of these centers. As a result, the function of these medical centers changed and they became kind of less expensive private clinics. Nevertheless, Dinnieh is still in need for the services of such centers, knowing that the area is characterized by a large number of informal workers and unemployed.

It appears that this remote area does not attract health sector investments. This can be explained by the difficult living conditions of most low-income residents, the large number of unemployed as well as the limited number of beneficiaries of any type of healthcare insurance knowing that most of the residents work in agriculture, construction, craftwork and small professions in addition to the high unemployment rate in the region. The residents of Dinnieh had to wait for the creation of the public hospital of Sir al-Dinnieh in order to benefit from medical services within their region. The hospital was inaugurated in 2002 and comprises 40 beds. The hospital does not contain reanimation and intensive care departments. Around 116 employees cover the different medical positions in the hospital (72 doctors distributed over 24 specialties). The Ministry of Health covers around 94.5% of hospitalized cases (compared to 54% on the national cases).

The number of dispensaries in Dinnieh increased reaching 12 centers distributed on nine villages. The most common specialties in these centers are general health (available in nine villages), pediatrics (7), dental care (6) and gynecology (4).

Private clinics with doctors of all types of specialties are also available but are however concentrated in three of the most important villages of the first cluster. There are only 15 pharmacies in Dinnieh concentrated in four villages in the first cluster. Laboratories are absent but similar services are provided by healthcare centers in the area.

In the total absence of primary healthcare centers under the control of municipalities, ambulatory dispensaries provide medical teams to remove villages that lack any medical services. It is important to note that most of villages (80%) witnessed active vaccination campaigns in the past years.

The problem in Dinnieh resides in the lack of specialized hospitals that provide treatment to common diseases in the area where cancer, heart pressure, diabetes and nervous diseases are common in addition to physical and mental handicap and Thalassemia due to traditional family intermarriages.

SWOT Analysis:

| Health and Hospitalization | |
|---|---|
| Strengths | Weaknesses |
| <ul style="list-style-type: none"> • Availability of doctors from different specialties, whose origins are from Dinnieh. • State and civil society interference in providing health services and institutions. • Increasing number of dispensaries during the past few years, and their potential expansion to cover other villages. • The existence of a public hospital. • Availability of health services in the main towns of cluster one. • Spread of vaccination campaigns throughout most of the villages. | <ul style="list-style-type: none"> • Insignificant awareness about public health issues. • Wide spread of chronic diseases and those caused by pollution and due to consanguinity. • Health insurance covers few people due to the reliance on informal jobs and because of the considerable weight of the low income social segments. • The need for free or low cost medical services in the region. • Hesitant and late entrance of medical services. • Medicines for chronic diseases are not available all the time in sufficient quantities. • The public hospital is the sole hospital in the region, unspecialized, suffering from low capacities, a difficult location to access, and excess in human recourses. • The closure of dispensaries due to financial difficulties. • High concentration of medical services in the main towns in cluster one and the lack of such services in other clusters. • Insufficient health services. • Lack of primary health care centers managed by the municipalities. • Irregular vaccination campaigns. |
| Opportunities: | Threats |
| <ul style="list-style-type: none"> • The existence of a development services center (under the supervision of the ministry of social affairs), which is adequate to transform to a small specialized hospital. • The availability of human recourses in medicine (doctors, specialists and nurses). | <ul style="list-style-type: none"> • High rate of hospitalization covered by the ministry of health, because few people are secured by government funds or private insurance companies. • Limited capabilities of the state to improve medical services. • The health sector is unattractive to private investments due to the social conditions. • The specialized human recourses prefer to work outside the region. • The health sector is open to political conflicts and interferences. |

7. THE ECONOMY

7.1 AGRICULTURE

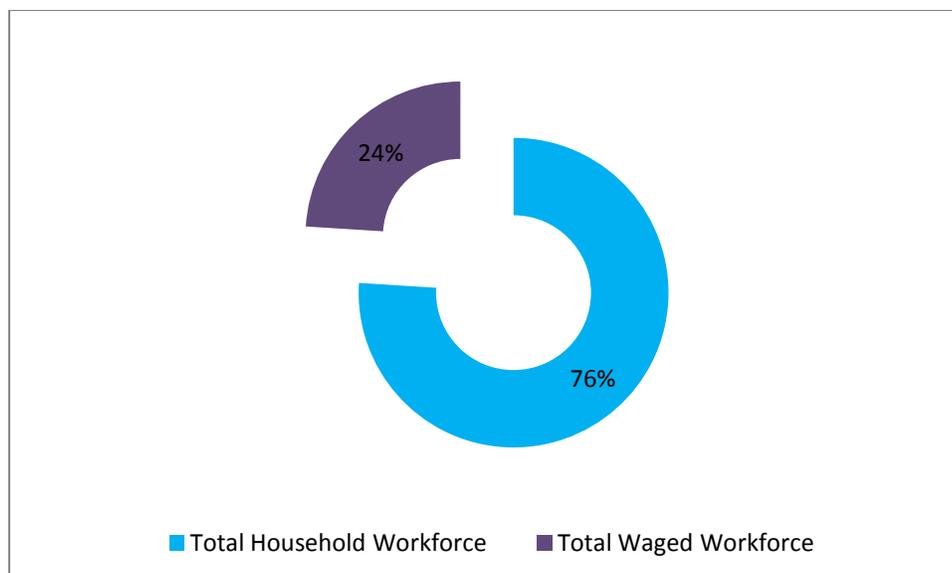
Agriculture is the main economic activity in Dinnieh which is well-known for its trees especially fruit trees. The agricultural products are diverse and include:

- Olive trees in coastal areas
- Almond and fig trees (vineyards which have diminished considerably in the “five farms”) in rain fed lands
- Summer vegetables in Njass, Mrabine and the villages of the fifth cluster
- Tobacco in the valleys of Izal, Harouf and Njass
- Grains in rural areas (Jiroun, Qarn, Nijass and Mrabine) and the fifth and sixth cluster

The major characteristics of the agricultural sector:

1. Small land properties: Around 88% of land properties are small lots (small financial return, negative competitiveness between farmers).
2. Family agricultural establishments: The income of 90% of permanent residents derives – totally or partially – from agriculture, of which 40% earn their entire household income from this activity. Family labor force (farmers – owners of land lots, family members) constitutes the core of agricultural work in Dinnieh which makes up three quarter of total workers in this sector whereas salaried workers constitute the rest.

Graph 4: Total agricultural workforce distribution among household and waged labor



3. Decline in gross agricultural areas: Agricultural lands constitute around 30% of the total area

of Dinnieh. Less than half of the agricultural zoned land is actually used (43%).

4. Decrease in the gross irrigated areas: The agricultural area is divided into irrigated areas (55%) and rain fed areas (45%). Irrigated areas tend to decline due to the poor management of water resources.

Table 10: Distribution of agricultural land (%) according to type by cluster (Weighted Averages)

| Cluster | Arable Land out of Total Area | Cultivated Land out of Arable Areas | Irrigated Land out of Cultivated Areas | Rain fed Land out of Cultivated Areas | Under-cover Cultivated Land out of Total Cultivated Areas | Tree Planted Land out of Cultivated Areas | Industrial Crops Land out of Cultivated Areas |
|--------------|-------------------------------|-------------------------------------|--|---------------------------------------|---|---|---|
| One | 10 | 43 | 86 | 14 | 0 | 94 | 10 |
| Two | 68 | 53 | 79 | 21 | 2 | 93 | 12 |
| Three | 14 | 32 | 68 | 32 | 0 | 83 | 25 |
| Four | 49 | 54 | 38 | 62 | 1 | 71 | 54 |
| Five | 71 | 30 | 7 | 93 | 0 | 47 | 87 |
| Six | 34 | 31 | 5 | 95 | 0 | 44 | 23 |
| Total | 30 | 43 | 55 | 45 | 1 | 77 | 35 |

5. Poor management of irrigation water
6. Traditional work methods
7. Absence of agricultural extension: Dinnieh lacks an efficient agricultural extension, a veterinary center and soil analysis laboratories. The area suffers from the limited number of experts (12 agricultural engineers and three veterinaries) which mostly work in other regions. Agricultural pharmacies are completely absent while small farm shops are available (Nine shops in six villages only). There is also a lack in specialties related to the agricultural sectors in the VET establishments of the area.
8. Rare activities in agriculture cooperatives
9. Commercial monopoly: Agriculture products are sold to merchant to then be exported. The size of fruit exports is estimated at around 75% of Dinnieh's production whereby prices are controlled by merchants. There are 20 workshops in Dinnieh dedicated to fruit and vegetable packaging, which are owned by residents and mostly located outside the area.

7.2 REMAINING ECONOMIC SECTORS

Beekeeping: Dinnieh comprises around 33'500 beehives and 750 beekeepers. Beehives have increased since the late 1990's by two to three folds. The region of Beit al-Faqs is best known for beekeeping in the as it contains 60% of total beehives of the region. Half of the region honey production (150 tons of honey) reaches the market

Domestic animal farming: Domestic animal farming is almost disappearing due to the high prices of feed the short of water and the need for veterinaries and medicines.

Poultry farming: The sector of poultry farming has picked up again and recuperated. Poultry farms are distributed among five villages: one small farm at Izal, medium size farm at Deir Nbouh , and six farms at Kfarhabou containing a total of 100 thousand birds.

Livestock grazing: Livestock grazing is still an important activity in the region. Dinnieh is known for its pastures especially in the highlands which attract shepherd from outside the area. However, there are increasing complaints regarding the practices of shepherds in forests which are damaging the environment whereby the goat livestock can harm trees and buds. There are around 19'000 goats and sheep in Dinnieh.

Firewood and charcoal making: Some residents rely on wood cutting as an economic activity that provides considerable income. This practice is common in remote areas especially in the third cluster (60% of Jiroun residents work in charcoal making). There is a charcoal factory in Kfarhabou.

Agro-food industries: Dinnieh lacks any agro-food industry except for the factory created by the cooperative in Beit el-Faks in 2000. A similar project was proposed in Kfarhabou where the women would run the factory. The remaining small factories, which are of a limited number, are operated by family workers and are all based on animal production such as cream, yogurt, ice cream, natural honey and sweets.

Small-size industries and craftworks: This sector is witnessing a relative growth and diversified activities. In addition to agro-food industry, Dinnieh contains more than 175 artisanal establishments, of which 88% are small-size establishments. Most of workers are males except for workers in artisanal workshops. The most common types of investments in this sector are individual and family establishments.

Trade sector: The vast majority of trade establishments are concentrated in the commercial center or all along the main roads of large towns. Most of villages lack any trade activity. The decline in the number of permanent residents has given markets a seasonal aspect, which partially explains the creation of commercial projects and establishments outside the region of Dinnieh.

Tourism sector: Dinnieh is characterized by several tourism incentives including the beauty of the scenery, biodiversity, natural reserves, water resources, enjoyable weather, and some archeological

sites. Touristic areas (municipalities classified as touristic areas) attract summer visitors from outside Dinnieh who are mostly residents of Tripoli and other neighboring areas. Tourism establishments, such as hotels, restaurants and coffee shop are mostly found in the fifth cluster, of which 69% are concentrated in 5 towns of the cluster. Tourism activities or attractions in the winter are non-existent despite the fact that the highest peak in Lebanon and the Middle East is found in Dinnieh (Qornet al-Sawda). In addition, the region can be a destination for ecotourism.

SWOT Analysis:

| Characteristics of labor market and human resources: | |
|--|--|
| Strengths: | Weaknesses: |
| <ul style="list-style-type: none"> • The tendency to diversify the labor market and economic activities. • The spread of individualism and entrepreneurship. • The big families (especially in rural areas) are considered a labor force reservoir for the agricultural sector. • The availability of a surplus labor within the contracting agricultural activities that can be transferred to other sectors. • Growing participation of women in labor market. • The existence of technical schools that provide vocational and technical training for the youth to compete in labor market. • The preserved skills especially those inherited by women, within the domain of traditional agro-food production. | <ul style="list-style-type: none"> • The spread of unemployment and underemployment. • The spread of child labor especially in agriculture and workshops. • Limited participation of women in labor market, and restricted to certain professions. • A dominant informal labor market that are not covered in social security systems (agriculture, construction, crafts, small enterprises, and self-employed). • Lack of certain specializations in technical schools that are related to agricultural activities. • Abolishment of social traditions of collective work. • The majority of enterprises is small and requires little human recourse. • Reliance on contributing family workers (especially in agriculture and in small businesses). • Relatively high cost of human resources and the reliance on foreign labor force in certain sectors (agriculture in semi-urban areas and unskilled industrial labor). • Migration of human resources abroad and mobility towards urban areas, seeking employment opportunities. |

SWOT Analysis:

| Economic Structure | |
|---|---|
| Strengths: | Weaknesses |
| <ul style="list-style-type: none"> • A tendency that occurred lately towards diversification of economic activities. • A relatively flourishing and more diversified sector of small industries and crafts. • Deep-rooted trading activities in Sir and Bakhaaoun. • Higher growth rates of commercial sector compared to other economic activities. • Existence of trading relations with neighboring regions and exports to other countries (GCC states). • Richness of resources produced by primary sector that can be utilized by industrial sector. | <ul style="list-style-type: none"> • The agricultural sector constitutes the basis of economic activities to the extent of a mono dimensional economy. • Weak economic activities of primary sector complementary to agriculture. • Concentration of commercial, touristic and industrial activities in certain villages (cluster one) • Agro-food industries are almost absent. • Lack of all kinds of financial sector activities (banks, financial institutions, insurance). • Lack of big industries and huge corporations and projects that require holding companies and big capital. • Local entrepreneurs tend to invest in businesses and projects outside their region. • Commercial activities during winter are affected by the population mobility outside the region. • The negative influence of the underdeveloped infrastructure on the economic activities (electricity cut-out, weak electrical power, lack of big generators, and bad quality of road networks, sewage system and potable water networks). <ul style="list-style-type: none"> • Absence of recreational and cultural activities, sports, festivals and expositions that stimulate the touristic and commercial activities. |

SWOT Analysis:

| Agricultural Sector | |
|--|---|
| Strengths: | Weaknesses |
| <ul style="list-style-type: none"> • Sufficient water supplies for irrigation. • Availability of land plots adequate for agricultural reclamation. • Existence of wide and rich pastures for livestock. • The region is famous of certain fruit products. • The variety of agricultural crops according to location, soil type, weather conditions and water availability. • External demand and exportation of agricultural production (fruits and vegetables). • The wide spread of packaging and cooling centers for fruits and vegetables that are owned by local investors, in neighboring regions. • Success stories concerning utilizing drip irrigation systems. • Improvements in beekeeping activities and honey production. • Increased amounts of poultry farms. | <ul style="list-style-type: none"> • The agricultural and primary sector in general did not develop in a trajectory that provokes the development of an industrial sector (agro-food production, industrial wood logs). • Decline of agriculture (in certain regions). • The dominance of smallholder farming and the weak revenues associated to it. • Agricultural activities' declining appeal amongst new generations. • Decrease in weight of irrigated crops (of higher revenues). • Misusage of water resources especially for irrigation (traditional irrigating systems: irrigation channels formed in the field, flood irrigation / insufficient reservoirs / water pollution). • Incomplete projects of dams and lakes and irrigation networks. • Insufficient and poor conditions of agricultural roads. • Lack of agricultural extension, veterinary centers, soil analysis laboratories, agricultural pharmacies. • Lack of organic crops. • The misuse of pesticides and other chemicals, which affect the quality of products, level of competitiveness, international trading standards, environment, soil and public health. • The wide spread of hand tillers that degrade the quality of soil and the lack of compact tractors. • Lack of awareness of post harvesting processes and product transporting best practices. • Lack of agricultural financial agencies. • Insufficient amount of agricultural cooperatives. • Smallholder farming lack government subsidies, while the green project is inadequate for small land ownership. • Traders monopolize agricultural financing and marketing tools. • Declining domestic livestock breeding (due to increasing costs of animal feed and veterinary drugs / scarcity of water). • Livestock grazing outside the natural pastures (in forests) and environment damaging practices. • Wide spread of logging activities and charcoal industry, and lack of environmental friendly industrial wood logs production. • Obstacles in retail selling honey production. |

SWOT Analysis:

| Tourism | |
|--|--|
| Strengths | Weaknesses |
| <ul style="list-style-type: none"> • The existence of stimulating factors for tourism and tourists' attraction (natural sites, archeological sites, weather conditions, rural activities in remote areas). • Prosperous summer tourism and its positive influence on real estate, construction and commercial sectors). • Availability of operational ecotourism projects and few promising ones are in the pipelines | <ul style="list-style-type: none"> • Lack of advertising campaigns that promote the features of the region and aim at attracting tourists. • The social segment that is attracted to visit the region is limited to the neighboring coastal region (Tripoli, Minieh, Qalamoun). • Concentration of tourist attraction in few towns categorized as touristic. • The seasonality of tourism and lack of winter touristic activities. • The existence of quarries and their harmful effects on environment and natural landscape scenery. • Hindering tourism through environmental pollution (due to solid waste handling and waste water treatment). • Incomplete touristic projects (Sir Teleferique, Dream Castle), and the closure of few existing projects (hotels). • Lack of environmental awareness. • Lack of amusement and leisure centers. • Maltreatment of archeological sites. |

SWOT Analysis:

| Economic sectors | |
|--|---|
| Opportunities | Threats |
| <ul style="list-style-type: none"> • The availability of unused land that is adequate for agricultural reclamation and/or investment in a variety of economic projects. • The existence of plain lands that are adequate for growing organic crops (Jurd Mrebbine and Jurd Njass). • The possibility of spreading of successful experiences with drip irrigation systems. • Utilizing the main developed towns (of cluster one) in leveraging the peripheral villages and clusters. <p>Availability of natural resources for stimulating ecotourism, winter tourism and agro-food industries ...</p> | <ul style="list-style-type: none"> • The region does not attract investments (even by local entrepreneurs). • Limited local demand and the seasonality of commercial activities. • The segregation of local market among distant villages. • Environmental pollution caused by quarries, wastewater, solid waste and inappropriate agricultural practices. • The mobility of human resources outside the region. • The lack of collective work among smallholder farming, investors and businessmen. • Increasing cost of agricultural inputs. <p>Deteriorating image of the region.</p> |

8. PUBLIC INSTITUTIONS AND CIVIL SOCIETY

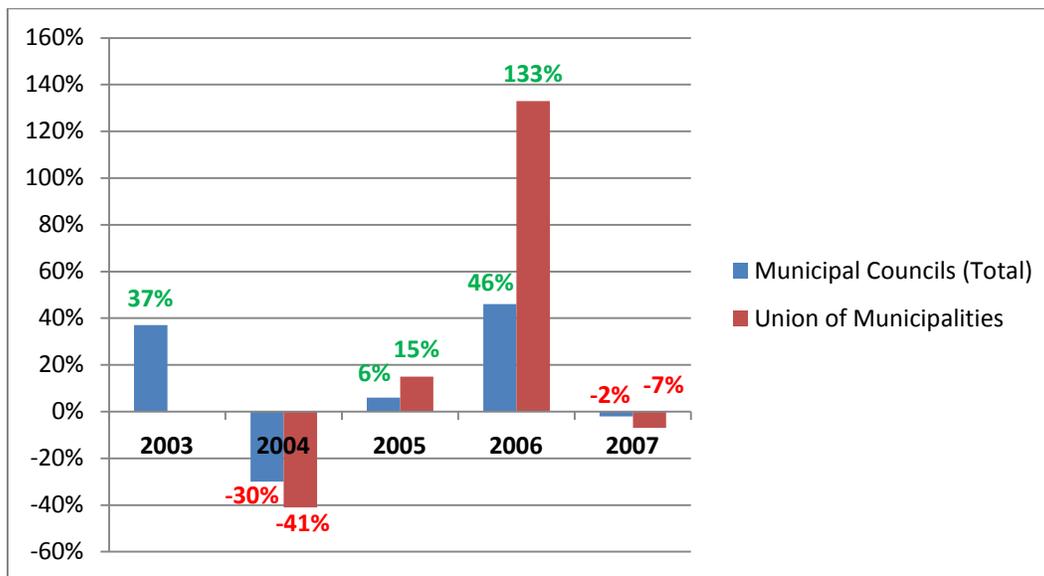
Most of public institutions in Dinnieh are located in Sir, (Civil registry, water and electricity authority, police, courts, the forest ranger center, etc.) the center of the region. Some institutions are located in Bakhoun which also tries to play a vital role in the area. The headquarters of the Qaemaqmaiya are established in Sir, but unfortunately not in use yet due to technical and political reasons.

Dinnieh is composed of 49 CF, 21 among which do not have municipalities. The remaining CF have municipalities and are divided as follows: 20 municipalities within the union of municipalities of Dinnieh, one under the union of municipalities of Mennieh and seven independent municipalities (not part of any municipal union). The union of municipalities of Dinnieh was established in 2004. The municipalities within this union can be classified under three categories according to the size of their council:

1. Large councils made of 15 members: 6 municipalities
2. Medium-size councils made of 12 members: 9 municipalities
3. Small councils made of 9 members: 3 municipalities

The municipalities of Dinnieh received LBP 19,4 billion from the Independent Municipal Fund during the past six years (between 2004 and 2010) with a yearly average rate of LBP 3,2 billion. The funds are distributed on the different municipalities according to the number of residents registered in civil records and according to the direct receipts collected by each municipality. The union of municipalities of Dinnieh received, during the past five years, around LBP 3,7 billion (around USD 2,5 million), with a yearly average rate of LBP 737,2 million. The municipalities and the union of municipalities of Dinnieh elected between 2004 and 2010 received 17% of total funds distributed through the Independent Municipal Fund to the municipalities and unions of municipalities of Lebanon during this period.

Graph 5: Annual growth rate of revenues from Independent Municipal Fund



The condition of municipality buildings (which are mostly rented) and equipment show a substantial lack in office equipment as well as the constant need for the improvement of municipal work through the provision of equipment suitable to modern municipal work. It appears that only six municipalities have an administrative structure. The total number of municipal staff is 36 employees. Two third of employees are part of the cadre (24 employees), and the rest are contracted workers (12 employees). Most of municipalities suffer from the lack of personnel at all levels.

The results of the survey regarding municipalities in the area show that most cleaning, forestation, and maintenance works are directly managed and carried out by municipalities. There are however certain cases where these works are outsourced. Most municipalities undertake the outsourcing of waste collection. Most of municipalities suffer from a significant lack in public gardens as well as conference and meeting rooms. Only a third of municipal councils of the area undertake social, cultural and environmental activities such as training sessions, cultural events and sport activities. Moreover, municipal councils provide social assistance to underprivileged categories in addition to financial support to sectors such as education, health and civil society organizations.

The survey identified 57 projects proposed by 18 municipal councils distributed among the different clusters of the region. According to the classification of municipalities, 40% of these projects are infrastructure projects and 26% are economic development projects. Among the most important

projects are the provision of an agricultural refrigerator in Kfarbannin, outdoor and indoor football fields and basketball courts in Sir, and the establishment of a VTE institution in al-Safira. Feasibility studies are available for 38 projects, while eight studies are currently being conducted, and only four projects have the necessary funding. Half of municipalities have projects in cooperation with national and international parties (around 13 different parties), whereby local authorities provide their financial support, expertise and administrative management of projects.

The most important obstacles and difficulties reported by local authorities and municipal staff are: the lack of financial resources, limited staff, interventions of the central government, the absence of municipal headquarters, and the lack of equipment.

According to fieldwork findings, there are 58 civil society organizations (CSOs) (excluding agricultural cooperatives) in 25 villages in Dinnieh. Most of these organizations (74%) are concentrated in the first (22 CSOs) and the second (21 CSOs) clusters.

Local CSOs have diverse activities and specialties. However, it is important to note that most of these CSOs consist of family leagues (14 leagues). CSOs working on development (10 CSO) are distributed among 7 different areas; there are seven charity CSOs, and three women CSO in Hazmieh, Azaqi and Kfarhabou. Sport clubs (9) are the most vulnerable associations in the area and are facing substantial lack of financial resources and sport facilities.

Certain CSOs play a vital role in several villages especially in the absence of the municipal councils or prior to their formation. A good number of CSOs played an important role in supporting development projects within the agricultural sector and the assistance of farmers (provision of irrigation water and construction of agricultural roads). Residents committees were created in some areas where local CSOs were completely absent.

SWOT Analysis:

| Public institutions and civil society | |
|---|--|
| Strengths | Weaknesses |
| <ul style="list-style-type: none"> • The wide spread of municipal councils among numerous towns and villages. • The existence of union of municipalities, which enhances the municipal developmental capacities. • The participation of local residents in developmental activities through municipal committees. • The availability of civil society organizations that assist in providing basic services and development activities. • The existence of local human resources within different domains of social work and local development. • The availability of local civil society organizations that aim at empowering women and assist them in entering the labor market. • Some international organizations provide funding and other assistance for development projects and the institutions that target development activities. | <ul style="list-style-type: none"> • The recency of municipal councils in many villages. • Decline in civil society organizations' role. • Poor capacities of municipalities, in terms of human resources, financial capabilities and equipment. • Insufficient powers to enforce law and paying taxes to municipalities. • Weak representation of women in municipal councils. • Not all municipal council are members of the union of municipalities. • Few and poorly spread civil society organizations. • Municipalities focus mostly on infrastructure development and enhancement projects. • Lack of sports activities and well-functioning sports clubs. • Deterioration of cultural activities and cultural associations. • The region almost lacks for public libraries, public parks and social event centers. • Insufficient public administrations and institutions, which are centralized in Sir. • The delays in completion of Qaemaqam headquarters. • Lack of cooperation between local authorities, civil society and the public and private sectors. |

| Public institutions and civil society | |
|--|---|
| Opportunities | Threats |
| <ul style="list-style-type: none"> • International organizations tend to emphasize on local development and empowerment of local authorities. • The availability of expertise and success stories among civil society and local authorities. | <ul style="list-style-type: none"> • State reluctance in supporting developmental projects and local authorities. • The existence of many administrative obstacles that hinder the work and initiatives of local authorities. • Delays in approving the administrative decentralization. • Disadvantage of small municipal councils regarding financial capabilities. • Lack of municipal councils in small villages. • Political disputes over public sector, elections and local community activities. • Sanctification of the politicians' role in development. • Infusion of traditional familial ties within institutional framework, like family associations and elections. • Residents lack awareness of their duties and the importance of paying municipal taxes. • Minimal funding resources for development projects. |



**SECTION FOUR:
PROBLEM TREE**

1. CONCLUSION OF THE SITUATION ANALYSIS

1.1 THE TREE OF PROBLEMS

The situation analysis of the region of Dinnieh should be completed by a set of concluding remarks based on the assemblage (or the networking) of different levels and sectors addressed in the previous parts of the second section of the report. The phase preceding the strategic planning requires to go beyond the SWOT analyses towards a conceptual framework of development obstacles and challenges within an inter-connected network that sheds light on the overlap between bottlenecks and obstacles hindering development in the region and their relationship. Accordingly, the conclusions of the situation analysis rely on the methodological conversion from a historical knowledge (in the previous parts) to the adoption of logical methods for scientific knowledge pertaining to the historical development processes of the region.

The objectives of the following exercise are as follows:

1. To construct an outline of the network of development challenges and identify the relationship between sectors and the different social aspects (refer below to the figure “tree of problems”)
2. To determine the priority problems to be addressed by the strategic planning which proposes solutions through the classification of problems, the identification of core issues and the distinction between “causes” and “consequences”.
3. To identify the sources of distortions to be addressed at the “take off”¹³ phase, the elements that must be preserved (development or improved) during the strategic plan follow up phases towards the achievement of a sustainable development strategy vision

The tree of problems should be used with caution as it focuses on problems and their negative impact on local communities while overlooking the points of strength and opportunities which are contained in the capacities of the local communities. Whenever considered within their social framework and linked to life matters (which are extremely complicated), problems are attenuated as they might compass positive factors that might be useful to overcome omnipresent negative consequences. Therefore, the tree of problems is a necessary tool should there be the will to work on addressing these problems and proposing adequate solutions.

The tree of problems is composed of several parts: the roots, the trunk, the branches, the leaves and the fruits (the sour fruits in this case). The tree of problems allows discerning between causes

¹³ According to one of the fifth phases of “the Rostow take off model” (1985), created by Walt Rostow in the framework of economic development theories. The five phases are: Traditional society, pre-conditions to take-off, take off, drive to maturity, age of massive consumption.

and results whereby the roots present the core of problems, the trunk being the structure of problems and they both constitute the causes of other problems; The branches are the holders of impact and are a middle zone where the causes and results overlap; the leaves and fruits symbolizes the results to the problems of the region. Based on the identification of information collected during the fieldwork, the tree of problems of the region of Dinnieh is drawn as follows:

1.1.1 THE ROOTS

A one-dimensional economy: The problem resides in the fact that the primary sector is the main economic activity of the region. Despite the economic diversification, such as trade activities, craftwork light industries, construction, and different services (tourism, education, health, transportation, some public functions, etc.), the agriculture sector is still the major component of the region's economy. The primary sector in Dinnieh is the only source of income to 40% of residents and a partial source to 50% of residents. Some agriculture activities, including the collection and packaging of fruits (workshops), are classified as part of the primary sector (as opposed to the secondary sector – industry), in addition to mining activities (quarries), wood cutting, and agriculture (vegetable and animal)

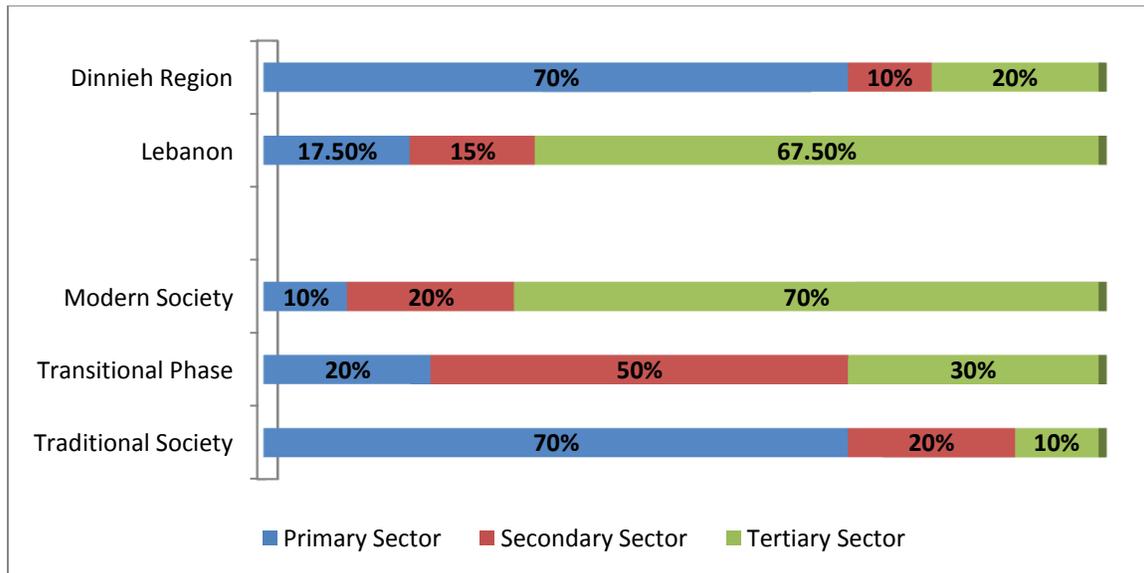
A society at the beginning of the transition phase: the omnipresence of the primary sector is a clear indicator of the development level of societies according to “the assumption of the three sectors” according to the economist and statistician Colin Clark and the economist Jean Forrester. Based on this assumption, the states are classified among three categories according to their phase of development based on the workers distribution among the three main economic sectors in the 1950's. The process of structural transformation of societies according to Forrester, is composed of three phases: Traditional society, transition phase and modern society.

This assumption could be used for the analysis of the development of industrial countries and developing countries as well as the comparison between the development pace of each of these countries, and the identification of periods necessary for each development phase. However, there are doubts that the use of such an assumption in the case of developing countries (such as Lebanon) taking into account that sector development standards are different nowadays. The tertiary sector (services), can be developed at the expense of the primary sector (agriculture) regardless of the state of development the secondary sector (industry)¹⁴. This however does not imply reaching a “modern society” according to the abovementioned classification.

¹⁴ Gaspard T., *Political Economy of Lebanon, 1948-2002*, Chapter 3: Growth without development, Dar Annahar, 2005. (Source for Figure 1 below). The numbers for Lebanon are for year 1997. The share agricultural workers decreased to 7.5% out of total labor force (15 years and above) in Lebanon, according to CAS.2004, Living Conditions of Households 2006, op.cit

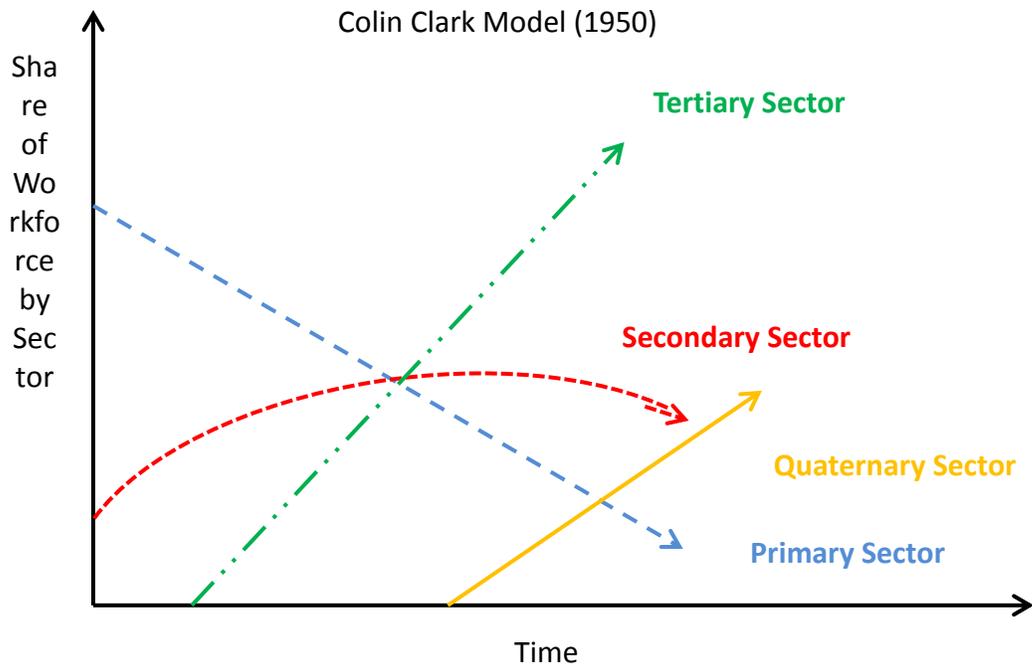
In the current condition of Dinnieh, where the percentage of workers in the primary sector is estimated¹⁵ at 70%, industry at 10% and trade at 20%, the region is more close to a traditional society than any other phase or at best a society in the beginning of the transition phase (especially in the total absence of financial institutions such as banks, insurance companies, credit institutions, and other).

Graph 6: Workforce share according to Three-sector hypothesis
(Comparison with Lebanon and Dinnieh)



¹⁵ A Dinnieh report entitled “Dinnieh: friend of the sea and neighbor of sky” (الضنية حليفة البحر وجارة السماء), UNDP-ARTGOLD.

Figure 2: Three-sector hypothesis



Small land lots ownership: Agricultural land lots in Dinnieh are at 88% small land ownership (less than 25 dunam) which impinge on the profit and production of small farmers and therefore threatens the sustainability of their products.

The decline of agriculture production: All the above mentioned factors constitute the core problems hindering the primary sector, while additional factors also hamper the growth of that sector, of which:

- **Individualism:** The spirit of cooperation and common work is replaced with negative competitiveness, which often hinders the achievement of many infrastructure projects such as the construction of agricultural roads and the installation of irrigation networks. This engenders conflicts between residents regarding the shares of irrigation water, and other issues.
- **The quasi absence of cooperative work** except for very few good practices. The absence of cooperative work is initially due to the dominance of small land lots, knowing that enhancing the role and performance of producers associations is among the solutions recommended by the World Bank in view of addressing this problem in economies based on the primary sector.
- **The absence of agriculture guidance** provided by the government which is unable to establish efficient institutions in this domain, the lack of academic and professional experts due to the incompatibility of education curriculum, and the poor guidance of students towards specialties that benefit their communities and improve their living conditions.
- **The dominance of semi-traditional work methods** whereby farmers have started to use some modern machines of limited technology, knowing the lack of access to more technologically advanced machine, the absence of cooperatives that provide such equipment in a participatory way and the absence of private sector institutions for the rental of such machines. In addition, some of the quasi-modern techniques that are currently used are on long term harmful for the soil and agriculture products (such as engines and choppers). The traditional techniques might be better and more sustainable, however the lack of agriculture guidance perpetuates the ignorance of the adequate techniques to be used depending on cases or the units of production.
- **The poor usage of agriculture supply** whether because of the lack of awareness or on purpose, is one of the problems hindering the growth of agriculture production as well as the its sustainability capacities. The poor usage of agriculture supply pollutes the soil, groundwater and fruits.
- **The increase of irrigation problem** including with absence of water in a number of villages, poor water distribution and the resulting conflicts, poor irrigation methods (flood irrigation), poor condition of irrigation networks (often in the soil), lack of water storage, incomplete vital projects (the dam of Brissa) and groundwater pollution
- **The decline of irrigated agriculture:** Additional villages are replacing their irrigated

agriculture with rain fed products, knowing that Dinnieh is the water richest region in Lebanon. Although Dinnieh, due to its rich water resources, still holds the highest share of irrigated lands compared to the national average rate, its share is still low in general when compared to the waste of water and the actual capacities should there be good irrigation networks and adequate storage methods and consumption guidance.

- **The incompatibility of standards of agriculture products with world trade standards** due to the poor usage of chemicals which leads to the increase of the tenure of fruits and vegetables. Therefore the chances of exports to targeted markets decrease and the quality of products as well as their comparative advantage decline.
- **The lack of use of well-known and famous registered trademarks and trade names** for agricultural products and manufactured agro-food products which limits the competitiveness of Dinnieh product
- **Absence of institutions micro-credit for small enterprises.** The Green Plan is funding projects for owners of land lots of an area smaller than 10000 square meters. Therefore, small farmers tend to resort to merchants at every season.
- **Commercial monopole** for export markets and brokers in Tripoli vegetable markets in terms of national market. Therefore merchants control both parts of the production chain: funding and marketing
- **Quasi absence of agro food production** except for honey products, two women association which produces agro-food at a small level in addition to small factories of milk cream (cheese, yogurt, cream ice cream). The region has significant capacities for the manufacturing of agro-food products due to the size and diversification of products which increases the price of commodities due to the manufacturing added value
- **Decline of livestock size** which is a complementary activity for agricultural production. Despite the development of beekeeping and poultry farms, a greater attention must be given to these sectors especially following the 2011 bee crisis which reduced by half the number of bees as well as the crisis that hit poultry farms during the past decade (the closure of poultry farms in the past and opening of new ones lately). In addition, domestic animal farming is considerably declining from a generation to another (especially in central towns)
- **The increase of wood cutting** for heating purposes and the production of charcoal especially in the north of Dinnieh which is known for its dense forests. This leads to negative aspects on environment. The spread of grazing practices harmful which threatens young trees.

The description of the region can be summarized based on the economic sector (roots), knowing that the region is at the beginning of the transition period from a traditional society, where its economy relies mainly on the primary sector, especially agriculture in small land lots. The dominance of this sector implies the importance of its development which prevents its degeneration and increases the living standards of a large category of residents which still relies on agriculture as the main source of income.

1.1.2 THE TRUNK

Informality: The lack of a legal framework is a problem which reaches various vital aspects of daily life and which hampers the development of the society. The issues which are affected by the lack of regularization in Dinnieh may be categorized in three major boxes which encompass real estate assets, administration of local affairs and the labor market.

1- INFORMALITY OF REAL ESTATE OWNERSHIP:

- **Non-completion of the mapping of land agents process by the state:** In many areas where there is a multitude of real estate zones, the mapping process was not completed while it was only partially completed in other areas. The result of this is that there is no scientific basis or legal backing to delineate the borders and areas of lands in a precise manner. This problem directly affects the issue of private land ownership
- **Absence of legal framework that governs individual ownership of land:** The non-completion of the mapping process resulted in the absence of land deeds which are replaced instead by certificates (QAYD AL 3ELM WA KHABAR) written by the mayor (mukhtar). This hinders the free exchange of real estate in the region and also sparks conflict between members of the community.
- **Spread of land grabbing** of communal lands and in some cases previously feudal land. The issue is not limited however to the building of villages, populated and modernized on communal lands and the reclaim of agricultural lands in them but also pertains to the aggravation of the situation due to vast amount of unused lands in Dinnieh couple with the population growth. This leads many municipal presidents¹⁶ to encourage people to

¹⁶ For example, the Municipal president of Qorsita Mohamad Allouch stated to the Al-Akhbar newspaper that the town suffers from “overcrowding...as a result of the concentration of construction in the center of the town without extending to its outskirts despite the fact that MASHA3AT of the town are wide. The lack of mechanisms

build on these communal lands. The law facilitates the spread of this practice whereby it allows the ownership of the land five years after seizing it if no formal complaints are made regarding the matter.

- **Reluctance in registering inheritance:** This is a widespread phenomenon in Dinnieh relatively to the family size (number of inheritances) on the one hand, and the limited property size on the other. Its aim is to prevent further fragmentation of lots. This issue is poses a threat to the principle upon which rests the notion of individual private property.
- **Absence of urban planning:** The region distinguishes itself by the randomness of the construction process. In fact, the area is classified by civil planning under the heading of “Non-organized area”.
- **Non-classified land use:** There is no classification of land uses or even differentiation between agricultural, housing, commercial and industrial lands etc. As such these different land uses overlap in an unorganized fashion whereby handicraft workshops, and mechanical shops are located at the entrances of touristic areas (rather than having specific industrial zones consecrated for them), or housing units are often built on the edge of agricultural lands. The lack of urban planning thus adds to the haphazard nature of the area.
- **Violations of construction permits:** As a result of all the above mentioned reasons as well as the increasing cost of issuing a construction permit (in comparison to the value of the estate and the revenue it may generate were it invested in), there is a spreading of buildings in violation of construction laws. This also promotes the haphazard nature of the region as well as distorts its aesthetics.

2- INFORMALITY IN THE ADMINISTRATION OF LOCAL AFFAIRS IN CERTAIN AREAS:

- The absence of a legal framework to organize real estate ownership, in addition to the factors which launched a mass population movement, contributed to the establishment of modern vibrant villages which lack however local councils and committees. In fact, the civil registration of their inhabitants remained bound to their original villages which they migrated from. Till today these individuals exercise their voting rights in their birth villages whereas they lack the presence of municipalities and mayors in the villages in which they actually reside. This reality is reflected in many parts of their lives. There is no party

by which to link the population to these MASHA3AT...has made us put on the top of our priority list the rehabilitation of current agricultural roads in addition to modernizing new ones...” Published in Abdelkafi Alsamad’s report entitled “Qorsita: Municipal Council is preoccupied by road and potable water problems” - Al-Akhbar newspaper, issue 1431, on Wednesday 8th of June 2011.

responsible for the management of population issues or the provision of solutions to their urgent livelihood issues. This is the case for Jeroon, Al-Qorn, Aassimoot, and bet Zoud. A similar situation is found in the area of Izal which consists of the town of Izal which according to records has a population of around 3,800, whereas there are eight newly created villages on its periphery with a population of no less than 9,000 individuals which were displaced from elevated rural areas. This is also the case of Mazraat Katran which is probably next on the list of newly created villages which indicates that this trend is expected to continue in the future.

3- INFORMALITY IN THE LABOUR MARKET:

- **Structure of the labor market:** At the top of the structure of employment in Dinnieh are small and medium sized farms. Most of these are family based in nature. Family businesses account for about 75% of the agriculture labor force. As for hired laborers in the agriculture sector it is in majority constituted from foreign workers, mostly from Syria. Most of the workers in agriculture are part of the informal sector since it is not subject to the Lebanese labor law. In addition, the agriculture sector may be characterized by a structural surplus in the labor force at a time when the productivity of marginal work in this sector is non-existent¹⁷. This contributes to population movement and/or the orientation of the youth towards liberal professions (small trade and industrial crafts), and construction work while leaving the option of seasonal labor in agriculture open.
- **Characteristics of private sector establishments:** Similarly to the agriculture sector which is based on small scale establishments and family labor, other economic sectors are also dominated by small and micro enterprises and family businesses. This is normal in a society which is based on a low rate of capital accumulation and as such low savings and investment rates.
- **Absence of social guarantees:** A society which is based on small investments which are family oriented in nature, and on liberal professions and which is denied access to public sector jobs (except in education and partially in health), the army and security services is one which is primordially composed of workers without any social guarantees or any other form of health insurance or pension plan or any other form of social protection (such as unemployment benefits).

¹⁷ What this means is that the productivity of the agriculture sector will not diminish if the surplus labor is withdrawn and this is according to the Louis Model (dual sector model) which was presented in "Economic Development with Unlimited Supplies of Labor" – 1954.

Informality is the legal form in which mechanisms of production, the labor market structure, the nature of private sector establishments and even the means by which to maintain individual private property operate. These are problems which the community inherited following the demise of the feudal system and in the absence of effective state intervention to solve the problems associated with this transition. The phenomenon of informality may be summarized by the lack of a legal framework to organize the community. This may be solved on a national level by initiating campaigns and taking into account suggestions coming from the local level.

1.1.3 THE BRANCHES

1- GOVERNMENT SOCIO-ECONOMIC POLICIES

- “The adoption of the liberal state model its approach to rural development is characterized by a rigid commitment to a balanced budget, and limiting public spending to available revenues and the adoption of a laissez faire policy, meaning that the responsibility for economic growth falls on the private sector while the government is fully absolved the adoption free trade policies which means not setting barriers to import and export activities...”¹⁸
- The adoption of an economic policy stimulating the growth of the services sector at the expense of the productive sectors and most of the producers. This has led to a major decline in the agriculture sector which has ended up amounting to 4.9% of the GDP in 2009 and a decrease in its value added of LBP 183 billion (-7%) from the previous year (constant prices of 2008).

2- SPREAD OF POVERTY:

Poverty rates in Lebanon reached 28%, whereas extreme poverty reached 8% in a population of 4 million (estimates of population size in Lebanon), entailing that around one million individuals live under the higher poverty line, whereas 300,000 live under the lower poverty line¹⁹. One of the major findings of the report was that “the most prominent results pertain to the wide regional disparities”. As evidence, “there is a high spread of extreme poverty and general poverty in the North (18% and 53% respectively). The situation worsens at the level of the Cazas of North Lebanon, whereby the two Cazas of Akkar and Minieh-Dinnieh have the highest rate of poverty in actual numbers in Lebanon, exceeding

¹⁸ Albert Dagher: previously mentioned source

¹⁹ UNDP, 2008. “Poverty and Income Distribution in Lebanon”

60% of their population. This is based on data from 2004-2005 UNDP study²⁰. In the same context the report pointed to the fact that “The Governorate of North Lebanon registers the highest decrease in individual consumption” whereby the average consumption rate of the individual is at its lowest in the north (three quarters of the national average). This is not surprising since the report reveals that “the poorest workers are highly represented in the agricultural sector”, reaching around 12% in Lebanon. In the governorate of the North of Lebanon, 25% of agricultural laborers are considered poor. Toufic Gaspard explains this phenomenon by stating that “most of the workers in the agricultural sector in Lebanon are in the lowest end of the income scale... and the low wages in this sector are coupled with the low productivity of the sector partly as a consequence of the mountainous nature of Lebanon and partly to the division of land into small pieces due to inheritance laws which are not economically viable. This has led to an external over migration at times and an internal migration from the rural areas to the urban ones.”²¹

3- SPREAD OF A “CULTURE OF POVERTY”:

“A country is not poor because it is poor”, according to Ragner Norkseh, one of the founders of classical development economic theories. Development is not a matter of availability of money only. Poverty has several more complex dimensions. The concept of “culture of poverty” is taken from the anthropological world of Oscar Louis and is considered a subculture of society with its own structure and its own rationale. He describes it as “the adjustment and reaction of the poor to their marginal position in this capitalistic, individualistic, class bound society. It represents the effort to fight and conquer the problems coupled with a feeling of hopelessness and despair which stems from the realization that success is not possible within the bounds of the values and objectives of the larger society The exclusion of the poor from participating and integrating properly in the main social institutions is one of the decisive characteristics of a culture of poverty Those who espouse this culture of poverty have a localized way of thinking as well as localized interests and orientations and a very reduced sense of history...”²² Louis concludes that “eliminating poverty is easier than eliminating the culture of poverty”. This study was subject to much criticism, the most important of which is the generalization by the author of “the culture of poverty” to all societies regardless of cultural differences between them, and his lack of differentiation between urban and rural areas. For these reasons, the culture of poverty differs in Dinnieh from that in Puerto Rico or New Mexico. However, by adopting some of the above mentioned claims, we may refer to their most important characteristics in Dinnieh which are represented by deprivation and social isolation, big family sizes, high fertility rates, and lack of social organization and the overlapping of kinship ties and political relations (parties and elections), a passive attitude toward the realization development and even toward individual and group related benefits through a dependence on the services provided by their political representatives in government entities and the loss of the promethean mentality (Human control of nature and the ability to affect change).

²⁰ Ibid, and the number is found on Chart #6, p 20 which itself was based on data from “Household living conditions” published by CAS , UNDP and MOSA (2004-2005)

²¹ Toufic Gaspard, previously mentioned source, p114.

²² Oscar Louis, 1966, La Vida

Poverty has many objective causes that are deeply rooted in society as well as equally complex consequences. Poverty reduction does not only require changing governmental policies, nor is it achieved solely through “financing the transition” with foreign aid and loans. Poverty reduction strategies need to focus on the root causes of this phenomenon and realize their long term consequences while developing action plans for local capacity building efforts.

1.1.4 THE LEAVES

1- THE RESIDENTS:

Rapid population growth and large household size: The registered population in the area increased by around 38% (exceeding one third) within the last decade and a half, and the household size reached 5.9. There is no doubt that these demographic realities pose great limitations to any development strategies. Indeed any strategy needs to provide the foundations to promote local economic growth rates which exceed that of the population growth rate in order to preserve the standard of living of the families; especially in a community which is characterized as young (it is estimated that 42.5% of the residents are under the age of 18). These numbers do point to a possible population explosion if the fertility rate does not decrease significantly.

Despite acknowledging the difficulties of these challenges, the first step has to be a sound understanding of this phenomenon. Older economic development theories were grounded in high population growth due to cultural reasons on the one hand, and due to the fact that that it is a primordial cause of underdevelopment of society on the other. However, observing differences between one region and the next which have the same cultural environment confirms that this phenomenon is not a fixed given which is not open to change. This issue certainly has many facets and is certainly not limited to a cultural view of reproduction. On the contrary, several more recent studies have proven that “most married couples, no matter how dire their living conditions, are rational beings when it comes to determining the number of children they will have which is usually in line with their economic, social, legal situation.”²³ In addition, a development economic theorist has pointed from an early time that there are three types of benefits which lead to wanting to have more children: Consumption and work benefit, income benefit, and security benefit²⁴. In this context, Mahmood Mamdani shifted the traditional view of development when he broke the myth which older economic theories had purported regarding controlling population growth by stating that people are “are not poor because of their large family size, but on the contrary, they have big families because they are poor”²⁵

²³ Allan Dijenefry and Carlos Jaramon, 1977. “Poverty Dynamics in rural Latin America”

²⁴ Libnestein, 1957 “Economic underdevelopment and economic growth”

²⁵ Mahmood Mamdani “Myth of controlling population growth”

Vast population movement: This phenomenon has diverse facets in the region in that there is internal population migration as well as external migration, be it within the country or outside the country even, temporary or permanent. The majority of these migrations are voluntary in nature while only some were forced. The reality is that this phenomenon is deeply entrenched in all of Lebanese society but the Dinnieh region registers a moderate population movement compared to most other regions. This does not diminish the importance and impact of the migration on local reality on the ground. In this regard, Toufic Gaspard notes the following: “the lack of income stability from sources external to regular work has led to vast migration of workers inside Lebanon to the outside. During the period of 1965-1980, rural migration represented 65% of urban population growth, the highest rate in the Middle East and other Arab countries. Most of these workers were absorbed into the services sector rather than the industrial one.”²⁶ The significance of these observations lies in the final conclusion due to the different views regarding the impact and importance of population movement in modernist theories. Theories of modernization have focused on the cultural value of population movement starting from historical studies regarding the emergence of capitalism in Europe and Northern America. What infused these theories are Eurocentric attributes which do not apply to the reality of other societies or with their own historical development. In his fascinating book which compares the historical development path between societies in Europe and the Middle East, Daniel Lerner tackles the issue of population movement: “People in western cultures are used to change and can adapt to its various aspects. For many generations, regular men found themselves not bound by their homeland and relatively free to move and no sooner did they transition from farms to apartments and from fields to factories than they became closely attached to the idea of change... The material mobility naturally engendered social mobility and gradually created its appropriate institutions... The social institutions which were built on the voluntary contribution of individuals required a new type of skills and a new test of abilities... It is a major assumption of this study that the projection abilities (i.e. the empathic projection of the mobile personality) is a widespread pattern solely in modern society which is characteristically an industrial, urban, and participative society...”²⁷ Thus, in regards to our region, Lerner considers that “the rapid postwar rush towards cities and capitals is usually referred to as “urbanization” but is actually a dangerous distortion of the historical meaning of this concept”²⁸As such, it is possible conclude that our region was subject to this phenomenon of population movement without the consequent transition into an industrial-urban society with social institutions that befit the new rational mobile personality.

2- MARKETS AND JOBS:

The seasonal nature of the economic activity: The typography of Dinnieh is characterized by being a mountainous region, rising to the highest peak in the Middle East, and is covered by snow in the winter season. In addition, its villages are inhabited year round up to 1,600 meters above sea level. It is for this reason that the main economic activity of the region is agriculture, which is only active in the summer season under current circumstances (in case methods of protected agriculture are not adopted). As such

²⁶ Toufic Gaspard: previously cited source, p116

²⁷ Daniel Lerner, 1958 “The passing of Traditional Society: Modernizing the Middle East

²⁸ Ibid.

the economic activity is based on summer agriculture. Similarly to agriculture, other economic activities are also seasonally bound. Tourism booms during the summer time, as most touristic establishments work in the summer season due to the complete absence of winter touristic facilities (despite the availability of natural environments appropriate for them). Commercial markets also thrive in the summertime and significantly shrink in the winter time due to population movement and the decline in income and consumption levels of the majority of the local permanent residents. The seasonal nature of the labor market (in addition to other factors) has created a disguised unemployment as well as a low quality of life and an environment which does not attract investment (due to low returns on investment). It is for this reason that most business men and big investors from Dinnieh have established their businesses outside of the region.

Not breaking this seasonal pattern of the economic activity in Dinnieh will be the biggest obstacle to the development of the region. The lack of development of the region will threaten what little economic activity remains, even during the productive season. In the absence of the development role of the state in the rural areas of Lebanon "leaving it to die when it was full of life... and is now semi-desolate and lonely. People avoid going back to their villages during summer break because the level of services available, from roads, to electricity and water hides for them the worst surprises. The rural areas are so empty that whole regions cannot handle opening even one restaurant or touristic establishment."²⁹

3- SOCIAL SERVICES

Absence of cultural and recreational facilities: The region is nearly void of recreational means such as public gardens, parks, sports fields, and other such entertainment and recreational places. In fact, the only library in the area was closed down even. Many ambitious projects which were started a long time ago (such as the cable cars, and the dream castle) were never completed for various reasons.

Shortcomings of the health sector: Despite the health services developments which occurred on the in the last decade through the construction of a public hospital in the region, medical and health establishments of all kind are still insufficient to cover the needs of the residents. In addition, the concentration of these establishments in the main towns creates a disparity between the regions. It would appear that the low income levels and the absence of health insurance (due to the informality of labor), have made the private sector reluctant to invest in the health sector inside the region.

Gaps in the Education Sector: The increase in educational establishments in the last few years has registered a noticeable improvement which has closed many gaps on the level of educational services. However, relatively to its centrality and importance in development, more work is needed on the improvement of the curriculums as well as modernizing teaching methods and techniques, the infrastructure, in addition to capacity building on the educational and administrative front and finally on the balanced distribution of schools and educational levels across the various inhabited areas.

²⁹ Albert Dagher: Previously cited source

Several studies have published very important results regarding education one of which is a study conducted in 6 developing countries by Harvard researchers. The study analyzed the impact of the individual's participation in the modernization process and concluded that "education is identified as one of the most important influences on people to move them away from traditional ways to modernity in developing countries... On average, an individual gains two to three more points on the modernity scale for every extra year spent in school"³⁰. The most important issue however for a region dominated by the primary sector, is probably adapting the curricula and specializations and vocational orientation to its needs. Education should be considered as an assisting component in the development of agriculture and the installation of modern man in his own land rather than a tool to distance the new generation from working in this sector or a means to facilitate their migration to the cities.

4- INFRASTRUCTURE:

Local authorities are aware of the importance of implementing the biggest possible infrastructure projects. These are essential for the improvement of living conditions, as well as for the development of economic activity and ensuring the preservation and sustainability of the environment. Undertaking new infrastructure projects, maintaining old ones and completing stalled projects does not in itself entail that the region is developing yet. Despite the importance of infrastructure in many aspects of daily life, and the fact that it is an essential component in linking development strategies to achieve desired goals, undertaking such projects in an unplanned manner may have more negative consequences through the waste of financial and environmental resources. The issue is not so simple however when it comes to Dinnieh in that it has had the principal roads to many villages which up until a few years ago remained unpaved. Many of the infrastructure projects have been delayed in addition to many started ones being stalled (which are considered missed opportunities) even though the need for them remains urgent as the old infrastructure is being worn out and no longer suits the population growth of the region.

- **Road Network:** These are considered essential to open up linkages between the residents of Dinnieh themselves (as there are many isolated areas which require crossing long distances to access them) as well as with other neighboring Cazas. In general, the current road network is in bad condition which negatively impacts the regions attractiveness to tourists.
- **Drinking water network:** Its non-completion deprives many villages from a natural resource which is actually abundant in the region, leaving them dry.
- **Sewage system and water treatment plant:** The completion of the study and implementation of these projects are necessary: to prevent the pollution of the groundwater, preserve the general health of people as well as preserving the most important source of income, namely agricultural land.
- **Disposal systems:** Improving these systems is of utmost importance in order to protect the environment which is considered one of the most important assets of the region.

³⁰ Alex Inkels, 1969: "Making people modern: Causes and Results individual change in six developing country

- **Electricity:** Despite the problems faced by all of in Lebanon when it comes to electricity, Dinnieh's situation in this regard is worse than that of other regions. This has negatively impacted spending summer vacations as well as the living conditions on many levels.

5- PROPERTIES AND BUILDINGS:

Properties: Two factors play a role in the value of buildings (residential and commercial) or unexploited land, and they are: Informality (non-completion of the mapping, absence of organization of land use, etc.) and the condition of the infrastructure. The low value of property in general (despite the variations based on location) is an incentive for commercial investments provided other conditions optimal for investment are made available. On the other hand, the low value of the land does not encourage property owners to sell or undertake real estate investment projects due to the low financial returns. What also encourages the spread of informality in construction is the difficulty and therefore lack of issuance or construction permits.

Buildings: Along with the development in construction in the region and the willingness of some of the expatriates to build houses for themselves in the area, the summering activity in the region also stimulated investment and the development of residential projects in some central towns characterized as touristic. Nevertheless several factors still play a pressing role in this sector. Such factors are the informality in the real estate department, the indiscriminate and random nature of construction, the low income level of most of the inhabitants, the lack of aesthetically pleasing building designs which cater to the taste of the public, and the bad conditions of infrastructure. These are factors which negatively impact the attractiveness of the area in terms of tourism.

It is a comprehensive perspective that covers all of the region's socio-economic problems and includes varied developmental obstacles which require extensive resources. The cornerstone in breaking seasonal cycle of the economy is taking advantage of the region's strengths such as the capacities of migrants, and local youth and investment incentives (real estate value, and the availability of manpower). Education and local empowerment will act as levers. Finally the objectives of the strategy is to enhance the quality of life in Dinnieh, the protection of its aesthetic value and the environmental sustainability for its permanent residents and visitors.

1.1.5. THE FRUITS

Inequality in regional development: This is an issue which is transient to various aspect of life whether it be residential, economic, pertaining to infrastructure, on the level of the provision of social services etc. These are matters which are obvious to the naked eye in terms of the differences in the level of urbanization between one area and another in Dinnieh. When trying to close the gap however, the benefits of maintaining the rural aspect of some areas as a basis of touristic diversity should not be undermined.

Damage to the environment: While the environment is considered one of the most important aspects of the region, certain practices threaten its sustainability. Some of these are the methods of agriculture (waste of irrigation water, the use of chemical insecticides and pesticides), absence of proper sewage systems, waste management mechanisms, the random nature of construction, bird hunting, etc. The current situation negatively affects the natural treasures and the biodiversity, the groundwater, quality of agricultural lands, agricultural products, general health and finally the disfiguration of the aesthetics of the region.

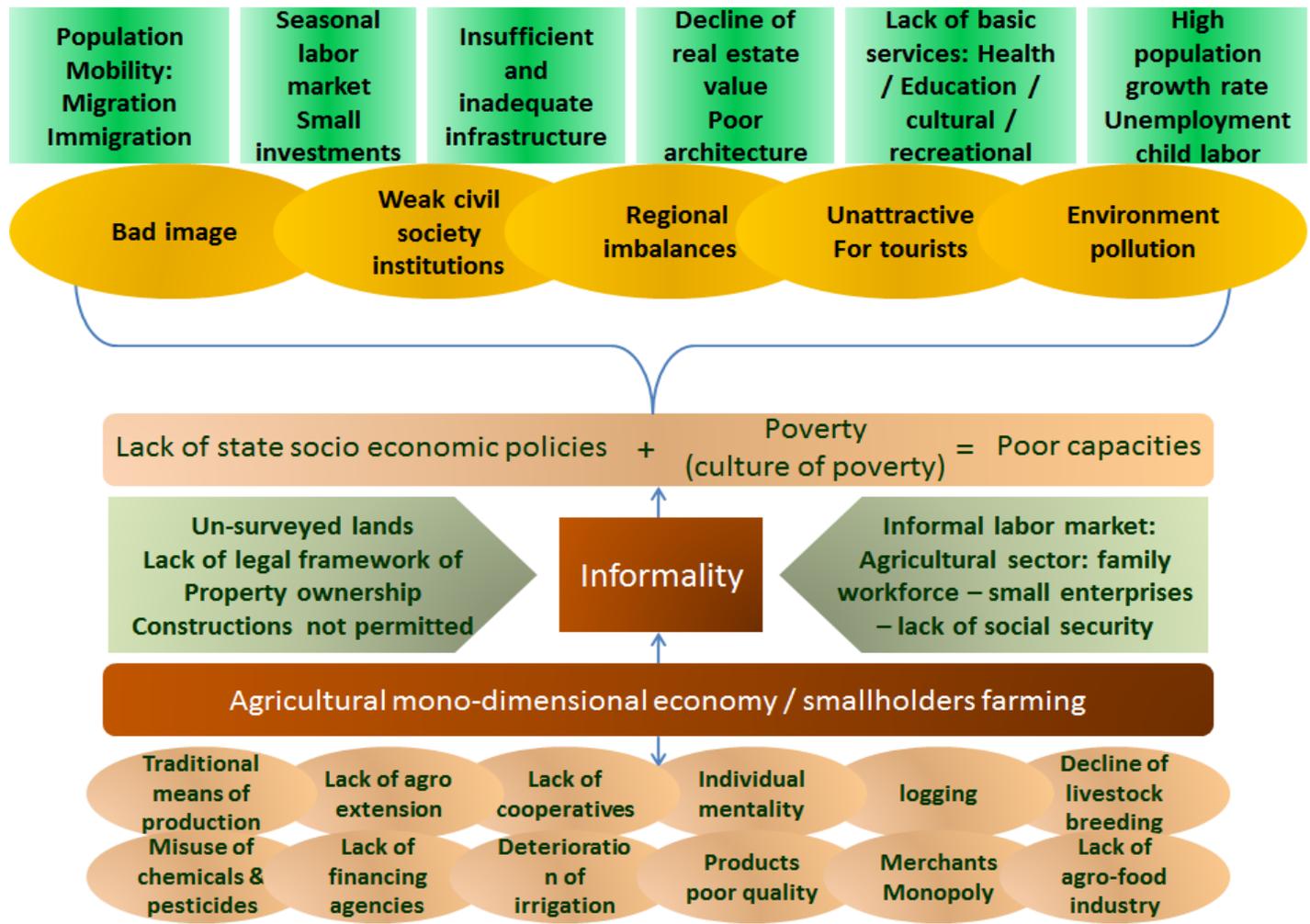
Striking the competitive advantages in attracting tourists: The lack of touristic facilities and services, the poor condition of the infrastructure, the deterioration of the aesthetic dimension of building designs and the environmental degradation of the region, are all factors which result in uninviting environment for tourists. This despite the available potential and capability for the development of this diverse and thriving sector.

Weakness of institutional infrastructure for local community: Some of this weakness pertains to the financial capabilities and the limited authority of municipal councils as well as the weak activity of local civil society, the rule of individualism between small farmers and the absence of agricultural cooperatives, the multiplicity of small and individual family run enterprises and projects. All this points to the weak capabilities of local partners in participating in the development process and to the necessity of raising awareness about the importance of collaborative work, capacity building, exchange of skills, the proper management of projects, and the encouragement of activities of local civil society organizations and local initiatives.

Picture of the region in people's minds: Due to certain events which occurred during the civil war, some of which occurred in Dinnieh, the image of the region in people's minds is not a positive one. It is for this purpose that work must be done to transcend all that which contributes to the negative reputation of the region by undertaking media campaigns aiming to change the public's perceptions by promoting all the positive aspects of the region (such as its beautiful environment).

Working on the final general results of Dinnieh requires a balanced regional development and making use and benefiting from its strong points, as well as activating the overall institutional structure, increasing awareness and environmental practices to promote sustainability as one of the most important assets of the region and which should be used to change the region's image making it more attractive to tourists.

Problem Tree: Summary of Challenges Tackling Development





**SECTION FIVE:
THE STRATEGY**

1. DINNIEH DEVELOPMENT STRATEGY

1.1 ENTRANCE TO PLANNING THE STRATEGY

“We must always remember the history of the rural area to understand its development and are therefore aware of what needs to be done for its sustainable development”

(SDATL) – January 2005 – page 22

The foundation of the current Dinnieh region was established between the thirteenth and nineteenth century, and as such the key to understanding the region today is in its history over those seven centuries.

Since the middle of the last century, Dinnieh has been subject to several important changes which led to transformations on all levels, starting with the demise of feudalism, the substitution of a variety of agricultural products following the decline of natural silk, to its current state today. Since then, Dinnieh has been subject to several interrelated phenomena:

- 1- Population growth accompanied by a one sector economy, focused on agriculture and unable to absorb this growth or the changing social expectations and aspirations for a better quality of life
- 2- Relative decline of the role of agriculture, especially in some central towns and slow development in the diversity of new economic activities.
- 3- Population movement in many directions, inside Dinnieh, to surrounding areas (especially Tripoli), as well as to the outside (whether temporarily or permanently), with several repercussions on the current demographic, economic, social and urban reality.
- 4- Development of the infrastructure and social services (health and education) in the region even though it was gradual and in stages, starting in the Chehabi phase and grew with the end of the civil war. This development was unequal however between regions of Dinnieh which led to an unbalanced internal development.

These changes had several direct effects on many aspects of the everyday life of the society such as relation to the land, the environmental situation, the rate of urbanization, modes of consumption, the role of women, the relation with neighboring regions etc.

The transformation in the structure of the region was not fast; on the contrary it required decades to reach its current state. This transformation however, was not balanced, creating disparities between one community and the next. In addition it remains inconclusive as to whether a community maintained much of its traditions and culture when it opened up to new things. The reason behind all of this is that the changes and developments which the Dinnieh region experienced, with all their negative and positive aspects, did not occur as a consequence of an organized action and long term strategic planning. Quite the reverse, these changes happened more or less spontaneously with some inconsistent interventions by the state. Despite this, the face of Dinnieh has effectively changed, and one cannot detract from its importance.

1.2 BASIS OF THE STRATEGIC PLANNING

Looking into a strategic development plan for Dinnieh requires relying on certain necessary principles to determine the orientations of the anticipated development. Among these principles are:

- 1- Be in harmony with plans developed on the national level and not transgress from them or contradict them, especially the National Physical Master Plan for the Lebanese Territory. In fact, the three principles laid out in that plan may serve as a general framework for the development of Dinnieh, and they are: “promote the unity of the nation, the economy and the people, balanced development, and the rational use of resources”³¹.
 - Dinnieh is implicated by the principle of unity for two reasons: First, its inhabitants are not a complete homogeneous group but the elements of homogeneity prevailed over those of dissociation. Second, the road to a unified country and society necessarily begins with communication between neighboring regions, which happen to be structurally diverse Cazas, with Dinnieh acting as one of the sides of the Hermel-Bsharre-Dinnieh triangle.
 - The principle of balanced development is indispensable to the Dinnieh region considering that the Cazas of Minnieh-Dinnieh and Akkar contain the highest rates of poverty relatively to the rest of the country.
 - Regarding the allocation and distributions of resources, it is a principle which directly relates to the most important natural resources that Dinnieh relies on. These are specified in the comprehensive plan: water, agricultural land, natural sites, natural vegetation (forests). These “form a national capital which must not be wasted these resources play a crucial role in many areas such as quality of life, agricultural productivity and the strength of attracting tourists and as such all forms of pollution should be avoided be it liquid or solid waste or even visual pollution”³²

³¹ National Physical Master Plan for the Lebanese Territory , 2005(p73 in Arabic) p1-3

³² Ibid p3-6

- 2- Reduce population movement from rural areas to the city on the one hand, and from Lebanon to foreign countries on the other. Provide incentives encouraging the people of Dinnieh to remain on their land and even try to reverse the process of migration to outside countries by promoting the local economy, creating job opportunities for its young society and providing a good quality of life including basic services and means for entertainment and leisure and the people's needs in terms of consumption products. This does not entail isolation from the region or lack of openness towards the outside, on the contrary, this becomes possible if each of the two sides of the equation fulfills its role based on its specificities and unique characteristics.
- 3- Strengthen the bonds of interdependence between Dinnieh and the surrounding regions, benefit from the National Physical Master Plan for the Lebanese Territory and attempt to achieve its recommendations by involving all the regions of the country in the economy. The following was stated in the final report: "Give the northern region and Tripoli a privileged place in maritime transport, industry, tourism, international exhibitions, higher education... The efforts of the government and public institutions need to primarily focus on the Northern region and Akkar in order to amend the worrying socio-economic situation which the area suffers from Achieving a true economic take-off in the north necessarily requires promoting its urban heart, the city of Tripoli and its surroundings."³³ The relations between Dinnieh and Tripoli go back in history and have never been interrupted, and till today impact the development of the region.

The plan also points out the need to establish "a national protection zone in the north which would include the Qornet el Sawda heights and natural regions of the north" which would comprise areas in Dinnieh, Akkar and Hermel that are geographically connected in the form of a triangle. This area would be dubbed the National Park. "Establishing this national protection zone does not come into conflict with the exploitation of the potential of the northern slopes of Qornet el Sawda in terms of sports and ski..."³⁴

In addition, the plan highlighted the need to "strengthen the ties between Sir Dinnieh and the three neighboring areas: Tripoli, Ehden, Akkar."³⁵ This is where the issue of historical overlap between the southern regions of Dinnieh (the five farms) and the Caza of Zgharta appears; an issue which has not been exploited to its full potential. This is especially the case since the linkages between the sixth cluster and the other clusters are below the required level due to the interruption of direct road networks between them till today. The same goes for the caza of Akkar. As for "strengthening the bond between Hermel and Tripoli", it has gone a long way now as a result of the construction of the Sir-Jebab el Hamra-Hermel road. In order to complete the plan, commercial ties and touristic projects need to be established between these regions in order to activate the linking tools in the future.

³³ Ibid p4-13

³⁴ Ibid p 4-77

³⁵ Ibid p3-5

- 4- Addressing the developmental discrepancies between the various villages of the Dinnieh region and turning this historical dilemma into an asset. Despite the importance of a balanced development process between the different residential clusters, it is possible to benefit from the differing levels of development in terms of varying the economic activities and preserving elements of rural society as well as the agricultural sector. In addition it is possible to exploit the biodiversity between the regions and its impact on touristic projects in terms of type, target audience etc.
- 5- Benefit from the central geographic location of the major towns (mainly the first cluster, especially Sir and Bakhoon) to link remote rural areas to this axis which will play its recognized role by strengthening administrative decentralization and promoting the creation of new establishments and facilities which will act as nodes in the infrastructure network of the region, thereby improving quality of life and protecting the sustainability of its natural resources from environmental degradation.
- 6- Ensure economic diversity within Dinnieh as well as continuity rather than develop a sector at the expense of another. In addition, activate the linkages between the sectors with leverage and the remainder complementary sectors which thrive in its development.
- 7- Promote the primary economic sector and inverse its declining tendencies through the diversification of activities of the agricultural sector as well as activities linked to it rather than having a one sided development. In addition, benefit from the agricultural lands which are suitable for agricultural production with value added.
- 8- Break the vicious circle which is based on seasonal economic activity (during the summer season) in varying domains: agriculture, tourism, commerce, services etc.
- 9- Create cohesion between educational services and the specificities of rural communities in order to develop it from the inside by responding to the demands of the community and the needs of the education sector; rather than encouraging dissociation between education and the agricultural communities which would either deprive farmers of education or educate and break their ties with their communities.
- 10- Capacity building of the human resources and enable them to undertake the strategic tasks and implement the work plans to develop the region. This would expose them to new work domains as well as to modern technologies and human communication via modern channels.
- 11- Encourage cooperative work in investment projects and unify efforts to create corporations break monopolistic patterns.
- 12- Empower the economic productive role of women and their place in society as well as benefit from the development and openness in female education rather than limit their involvement in certain domains and jobs.

13- Change the perception of the region in people's minds through a media campaign which would break the stereotypical image of the region and its people, especially after the events of the year 2000 to the events of Nahr el Bared in 2007. In addition it would serve to attract new social groups who would become curious to visit the area and spend some time in it.

When putting in place a work plan for a development strategy, certain issues must be firstly specified and they are:

First: Distribution of roles to the main players in the society, such as the government, private sector, civil society, local authorities to the individual. Each of these entities has its role which it must undertake. The strategic development plan may not succeed on the ground if these efforts, resources and energies are not complementary.

Second: Determine the priorities within the strategy so that the plans don't contradict each other and to no encourage negative competition rather than positive one among the benefiting sectors and groups. Developing a particular sector before improving the conditions of another may be more harmful in the long run, and all the efforts, resources and investments spent on its development would be in vain if time is not spent to ensure sound foundations for it to prosper long term. The key to providing this foundation is by working on rehabilitating the supporting and complementary sectors to it.

Third: Prevent the outbreak of conflict and violence between members of the community when working on implement and realizing the strategic development plans due to ignorance or shortsightedness, or even a damaged process. It is for this reason that it is important to work on raising awareness regarding the importance of this strategy in putting public interest first, and its benefits to different groups in society. It is also important to work in parallel on training individuals and local authority on conflict resolution skills.

1.3 THE VISION

The strategy will be established so as to achieve the vision for the region in the long run in the following manner:

Dinnieh is an attractive region for living, rich in job opportunities, education and basic health services as a result of optimal investments in its competitive advantages embodied in its biodiversity, its natural richness, and which requires for its sustainability the development and improvement of the agricultural sector, diversification of touristic activities, concurrently with the completion of infrastructure facilities.

2. ACTION PLANS

2.1 PRIORITIES OF ACTION PLANS

The detailed tables outlining the work plan of the whole Dinnieh strategic development plan are located at the end of the report. Each table represents the targeted sector for intervention, the goals of the intervention, the stakeholders responsible for its implementation and supervision, and the priority of each work plan divided into short term, medium term and long term.

It is noticeable in the tables that some of the action plans require an active and effective intervention from the state and the different public institutions, while others require the involvement and participation of civil society, through local authorities (Municipal union, Municipal councils, etc.) in addition to other actors such as experts, NGOs, private sector, businessmen. Several of the work plans require the interlinking of interventions from various parties and the establishment of committees specialized in certain areas and topics as well as the establishment of big companies specialized in the different sectors which would contribute to the capacity building of the local community. This would be done with the on the assumption and hope that the local civil society would play a big role in launching these projects, following up on them, implementing them, funding them and supervising the workflow.

In view of the number of work plans, it is possible to summarize the interventions within a list of sectoral priorities as follows:

- 1- The most direct priority: Develop the agricultural sector and farmers (especially small and medium farmers). The reason for this is that the development of this sector represents livelihood support for the majority of the region's inhabitants. This would increase their productivity as well as their income levels, strengthening the bond between the new generation (in a mostly young society) and their land. In return this would lead to an increase in the number of inhabitants and as such in the level of consumption, thus developing the local market and encouraging private sector investment in the region. It is not possible however to develop a sector which is dominated by small and fragmented agricultural land ownership without the establishment of agricultural cooperatives which would cover various areas and products, and production lines in addition to improving some of the social services for the farmers. The goal behind developing the agricultural sector may well be the development of complementary activities within the primary sector, the most important of which being the food industry in all its forms.
- 2- Intermediate means: Promoting the capacity building of local skills, institutional structure, infrastructure, social services and activating networks of private local investments covering the major social facets that affect the region's quality of life/
- 3- Long term goal: Establishing a diverse tourism sector (ecotourism, winter time tourism, summer tourism, etc.) as a basis for the diversification of economic activity to not limit it to the primary

sector which is solely based on agriculture. In order to attract tourists of all kind, a media campaign is needed to change the image of the region in people's minds.

Reaching this long term goal is considered shift for the region taking it from its seasonal nature in terms of economic activity to a more sustainable and stable and prosperous region year long.

The most important condition to achieve these development goals lies in ensuring the sustainability of the environment which is considered the most important asset of the region. This should be taken into consideration when initiating any project or intervention in any of the sector. The development of the agricultural sector, the food stuffs industry, urban planning, the improvement of the infrastructure as well as the establishment of a flourishing tourism industry all cannot bypass preserving the environment of the region its beautiful views to bequeath a sustainable future for generations to enjoy.

3.1.1 AGRICULTURE

International organizations are returning to a view which promotes agricultural development after shying away from issues pertaining to the productive sector for no less than a quarter century. This was done to the benefit of policies which exuded pressure on governments of indebted nations in order to achieve economic stabilization programs (in the seventies) and structural adjustment programs (in the eighties). These stringent programs were implemented across the vast majority of indebted nations regardless of their particularities and specificities. After years of worsening crises in these countries which succumbed to World Bank and IMF policies however, there was a paradigm shift in development, focusing its attention on agriculture yet again. “Given that the last development report in the world focusing on agriculture was published over 25 years ago, the time has come to re-include agriculture in development programs”³⁶ The World Bank development report also ends on the following note “In the 21st century, agriculture continues to be a fundamental instrument for sustainable development and poverty reduction.”³⁷

Responding to those criticizing the view that agriculture contributes to poverty reduction, the report admits that it is not the only factor, however Cross-country estimates show that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth originating outside agriculture”³⁸

“Agriculture thus offers great promise for growth, poverty reduction, and environmental services, but realizing this promise also requires the visible hand of the state—providing core public goods, improving the investment climate, regulating natural resource management, and securing desirable social outcomes... The state will need greater capacity to coordinate across sectors and to form partnerships with private and civil society actors... Civil society empowerment, particularly of producer organizations, is essential to improving governance at all levels”³⁹

Since the problem of the spread of small agricultural land ownership has permeated across the globe (as if the case with Dinnieh), the report concludes that “using agriculture as the basis for economic growth in the agriculture-based countries requires a productivity revolution in smallholder farming”⁴⁰ The World Bank has considered the a major priority: “Top priorities are to increase the assets of poor households, make smallholders—and agriculture in general—more productive, and create opportunities in the rural nonfarm economy that the rural poor can seize.”⁴¹ Increasing the productivity and sustainability of the agriculture of smallholders requires according to the report, the following measures:

- 1- Improve price incentives and increasing the quality and quantity of public investment

³⁶ World Bank, 2008 “Development Report 2008: Agriculture for development” page 1

³⁷ Ibid

³⁸ Ibid p6

³⁹ Ibid p 1

⁴⁰ Ibid p2

⁴¹ Ibid p2

- 2- Make product markets work better
- 3- Improve access to financial services and reduce exposure to uninsured
- 4- Enhance the performance of producer organizations
- 5- Encourage innovation through science and technology
- 6- Make agriculture more sustainable and a provider of environmental services

In addition, the report noted that the ability to increase the access to assets owned by the families lies in the ground, the water, and the human resources (as in education and healthcare)

The report justified the focus on social services such as education with the following: “education is often the most valuable asset for rural people to pursue opportunities in the new agriculture, obtain skilled jobs, start businesses in the rural nonfarm economy, and migrate successfully... with education conceived broadly to include vocational training that can provide technical and business skills that are useful in the new agriculture and the rural nonfarm economy.”⁴²

Regarding water, the report states: “Access to water and irrigation is a major determinant of land productivity and the stability of yields. Irrigated land productivity is more than double that of rain fed land... Even with growing water scarcity and rising costs of large-scale irrigation schemes, there are many opportunities to enhance productivity by revamping existing schemes and expanding small-scale schemes and water harvesting.”⁴³

In this manner, the link between agriculture and the environment is made obvious and the report determines: “With rising resource scarcity and mounting externalities, agricultural development and environmental protection have become closely intertwined. Agriculture’s large environmental footprint can be reduced, farming systems made less vulnerable to climate change, and agriculture harnessed to deliver more environmental services. The solution is not to slow agricultural development—it is to seek more sustainable production systems.”⁴⁴

As for Lebanon, the reality is that the agriculture sector is further deteriorating year after year in terms of the value added of the sector (in constant prices), the share of the sector in the GDP, and the share of agricultural workers within the labor structure in the country. The share of land dedicated to agricultural products is has decreased from 279 thousand hectares in 2006 to 277 thousand hectares in 2008; the land dedicated to the agriculture of fruit trees only slightly increased from 76.8 thousand hectares in 2007 to 77 thousand hectares in 2008. These lands took up the biggest share of cultivated land reaching 28% of total cultivated land.

The value of fruits also increased in the country from LBP 759 billion in 2006 to LBP 919 billion in 2007, an increase of 21% while its share out of total plant production rose from 39% in 2006 to 43% in 2007.

⁴² Ibid p 9-10

⁴³ Ibid p9

⁴⁴ Ibid p2

Table 11: Value of crop production output (2005-2007)

| Products | Value of Outputs (billion LL) | | |
|-----------------------|-------------------------------|---------|---------|
| | 2005 | 2006 | 2007 |
| Fruit Trees | 630.7 | 759.3 | 918.8 |
| Total Crop Production | 1,441.1 | 1,942.9 | 2,155.0 |

As for data regarding foreign trade, it would appear that the quantity of exports of fruit trees rose from 273 thousand tons in 2005 to nearly 318 thousand tons in 2008, an increase of about 16%. The products of fruit trees accounted for nearly 57% of total plant product exports in 2007. The value of these exports rose from LBP 59 billion in 2005 to nearly LBP 80 billion in 2007, an increase of about 35%, accounting for about 38% of total plant products in 2007.

Table 12: Exports of crop production (2005-2007)

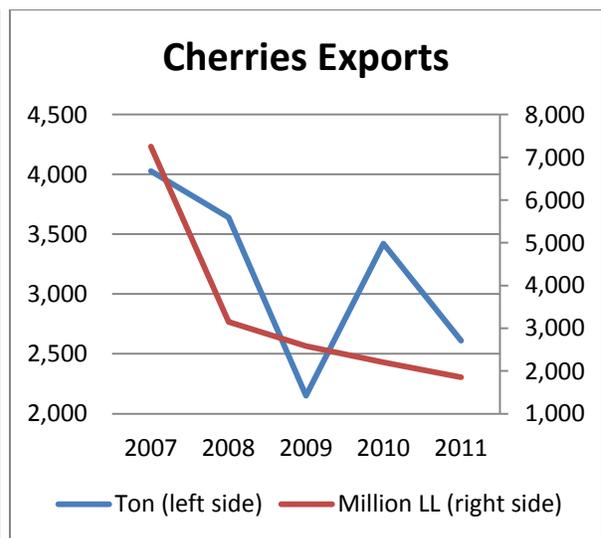
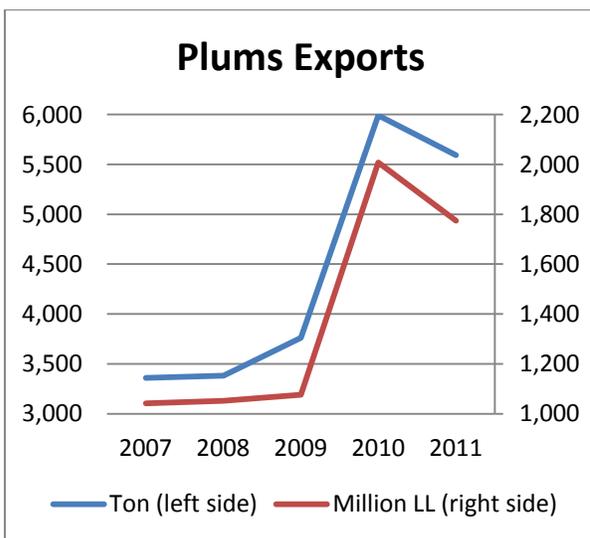
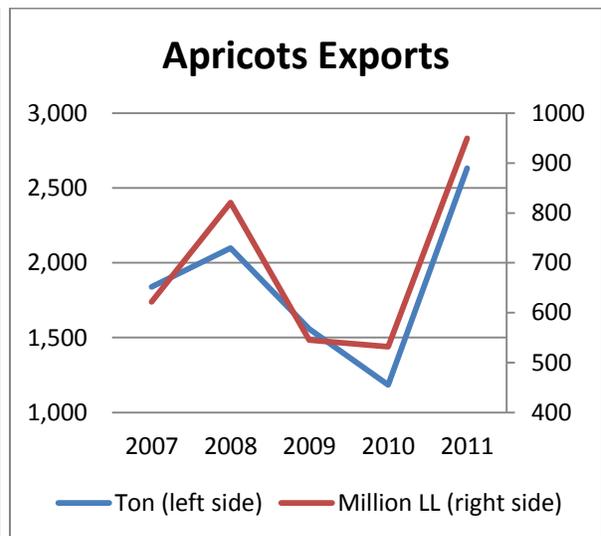
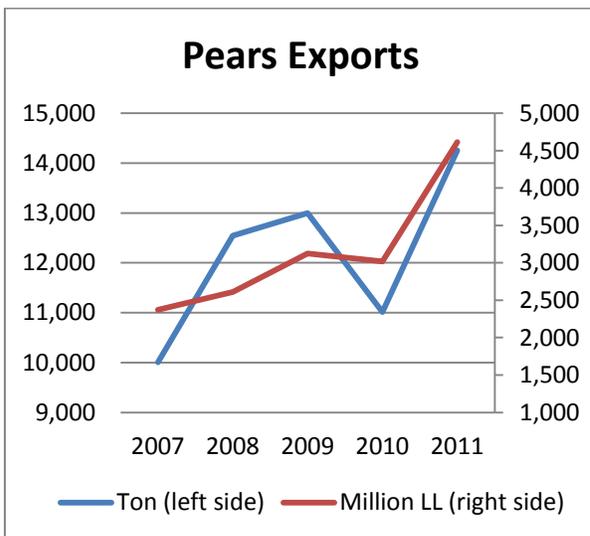
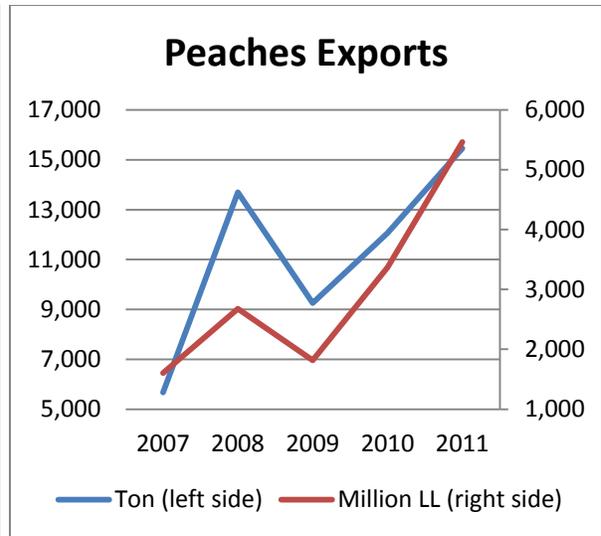
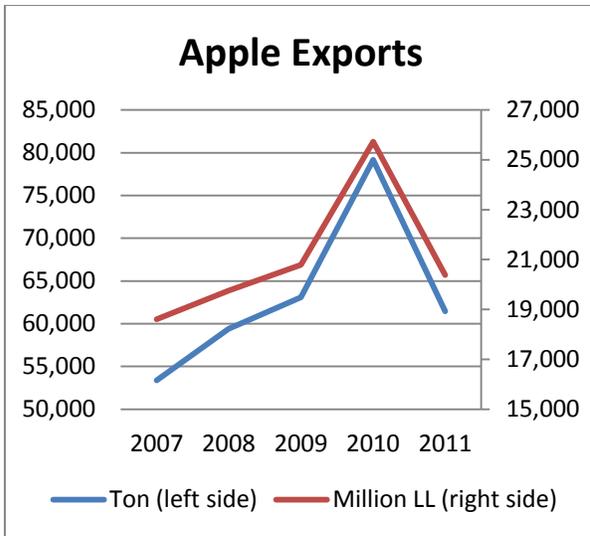
| Products | Value of Exports (Million LL) | | | Weight of Exports (Ton) | | |
|-----------------------|-------------------------------|---------|---------|-------------------------|---------|---------|
| | 2005 | 2006 | 2007 | 2005 | 2006 | 2007 |
| Fruit Trees | 59,052 | 67,225 | 79,913 | 273,140 | 250,012 | 317,968 |
| Total Crop Production | 158,707 | 157,878 | 208,952 | 490,181 | 443,759 | 561,617 |

Despite the above mentioned data, one must guard against over optimism regarding the most important products of the Dinnieh region. The fruit tree products which are at the top of the list in terms of production quantity are those which represent marginal items in Dinnieh which does not produce them in commercial quantities at this time either due to situational reasons (nature of the land, distance from sea, weather factors) or due to other reasons which lead to the decline of these products. The distribution of fruit tree products in 2007 was as follows:

Table 13: Quantities of fruit tree production (2007)

| Rank | Product | Weight (000 Ton) | % of Total |
|------|--------------------------|------------------|---------------|
| 1 | Oranges | 229.0 | 23.4% |
| 2 | Apples | 125.2 | 12.8% |
| 3 | Lemon | 114.0 | 11.6% |
| 4 | Grapes | 106.0 | 10.8% |
| 5 | Bananas | 89.7 | 9.2% |
| 6 | Other fruits | 75.5 | 7.7% |
| 7 | Peaches | 41.3 | 4.2% |
| 8 | Mandarin | 35.0 | 3.6% |
| 9 | Pears | 33.5 | 3.4% |
| 10 | Apricots | 32.0 | 3.3% |
| 11 | Cherries | 30.0 | 3.1% |
| 12 | Almonds | 29.4 | 3.0% |
| 13 | Plums | 24.6 | 2.5% |
| 14 | Other citrus | 14.0 | 1.4% |
| | Total Fruit Trees | 979.2 | 100.0% |

To focus on the fruit products which Dinnieh specializes in, the six most important types were chosen and they are: apples, peaches, pears, apricots, quince and cherries. A comparison of the export trends of these products over the last 5 years was undertaken. Three of the varieties experienced a decrease in 2011 in terms of quantity and value of exports from the previous year and they are, apples (whose export quantity decreased 22%), peaches (-7%), and cherries (-24%). The difference between these products however is that apples and peaches experienced a continuous growth in the years preceding 2011 which entails that exceptional circumstances must have contributed to their decline in 2011 (the situation in Syria). With regards to cherries, its exports fluctuated upwards and downward over the years which would entail that it is more affected by the markets' situation. The remaining three products experienced an increase in both quantity and value of exports from the previous year. Peaches experienced an increase of 28% in the quantity of exports, pears and quince experienced an increase of 29% while apricots increased 22%. Peaches and Apricots have fluctuated more over the years than pears and quince which only experienced an insignificant decrease in 2010. As for the value of exports particularly, it would seem that most of the products are increase and decrease according to the quantity of exports with varying ratios between one product and the other (apples and peaches at the most stable in terms of price). Cherries on the other hand have experienced a decline export value terms since 2007 despite the fluctuation in the quantity of its exports, entailing that there are major pressures to which cherry prices and demand succumb to each year.



A report issued by the Ministry of Agriculture regarding fruits and vegetables points to the following strengths: “The series of production of fruits and vegetables is considered the most important in the agricultural sector in terms of quality and quantity and its value added in this sector reaches 3.5% of GDP.

The production of fruit and vegetables developed in Lebanon in light of its distinct geographic location, availability of water as well as the diversity of its terrain, all part of its distinguished nature. This has allowed for variety in types of agricultural lands and as such in types of products. The difference in elevation of the different regions allows lengthening the period of production of fruits and vegetables...

Agriculture of fruits and vegetables is spread across the Lebanese territory, but certain regions may have more than others: Fruits in the Bekaa (38%), in the North (23%), the South (21%) and these are considered the main source of Lebanese fruits...”⁴⁵

The same report however points to a decline in the production of fruits and vegetables for various reasons, the most important of which are:

- Secure production through small farmers
- Intervention of intermediaries and the monopoly of traders
- Weak credit policy
- Absence of guidance
- Increase in the cost of production
- Use of traditional agricultural means
- Weak investments
- Lack of regularization of wholesale markets
- Absence of market prices (they vary per time of the day)

The report concludes the following: “It is for this reason that Lebanon will experience, on the level of fruit production, an obsolescence in the fruits cultivated and an ever decreasing fit between the taste of the consumers and the market needs”⁴⁶ The report highlights the expectations of the FAO regarding the increase in fruit demand by 53% by 2020 and 60% for vegetables. In the same token the report expects stronger competition from the European market with the opening up of Arab markets. As such, the following recommendations were presented:

- 1- Classify products
- 2- Establish a real system for price configuration
- 3- Activate investments and funding sources
- 4- Activate cooperatives and vocational organizations
- 5- Develop and improve agricultural techniques

The Lebanese Ministry of Agriculture finally highlights the importance of establishing an Agricultural Strategy for Lebanon and has defined its goals as follows:

⁴⁵ (footnote page 83 #48)

⁴⁶ Ibid p38

“The adoption of an Agricultural strategy for Lebanon by the Ministry of Agriculture aims in the next 20 years to develop a positive climate which would allow for the sustainable development of agriculture and re-establish a balance with the rural regions whereby the human development aspect would be balanced and comprehensive with improved living conditions being the desired end result”

Cited from the introduction of the report on “Chain Production” – 2005, written by Minister of agriculture Dr. Talal Assahily. Ministry of Agriculture and FAO – December 2005

Regarding the quality of agriculture products, which is threatened by the use of chemicals due to the distancing from organic farming which was more widespread in the past and the use of modern agricultural equipment without any proper training or guidance, the report states the following: “During the sixties, agricultural practices in Lebanon were very traditional (plant and animal production). In the last two decades however, the use of chemical products has become the norm which led to an increase in the quantity of agricultural products but coupled with a deterioration of the quality of the products and this is mostly due to chemical remnants on the products.”⁴⁷

In this context, it is possible to benefit from the decision of the parliament to launch a program for the development of agricultural exports through IDAL (Investment Development Authority of Lebanon). IDAL encourages modern production means and the use of modern techniques for the production of produce which can be exported. The program has been named Agri Plus and aims to increase the size of agricultural exports and opening new markets, as well as increasing the foreign consumer’s trust in Lebanese agricultural products. This occurs through financial incentives to farmers and exporters as well as the participation in international exhibitions, capacity building and training centers, packing and cooling centers as well as quality assurance, prepare market studies and other such marketing activities.

Another important matter is the overlap of various reports regarding the importance of improving and activating producers’ organizations, or agricultural cooperatives. In this regard we can point out to an experiment conducted in France in World War II and that is of cooperatives known as CUMA. These were established by law and received support from the state when it launched. The justification for establishing this cooperative at the time was the presence of many small farmers who lacked the capabilities to automate production processes on their own. Despite the failure of some of these

⁴⁷ Ibid p10

cooperatives at the start due to the fact that they aimed to purchase equipment together without relying on joint work between the farmers; some cooperatives succeeded in overcoming these difficulties and their number increased to reach 12,500 cooperatives with 240,000 members.

In addition to this, the positive experience was also represented in the development of the administrative side and the institutionalization of cooperatives through administrative training and equipment maintenance. In this manner, its responsibilities' increased to include many more aspects such as raising awareness, planning, environmental protection, production etc. till it became an inseparable from the process of local development, a new dynamic regional development process in France. This success became an important affair even leading to the establishment of mutual funds for these cooperatives which were given special authority in the labor law which was amended to fit with the current situation. The success of these cooperatives is made even more obvious by the fact that the number of members registered in them has remained stable despite the decrease in the number of farmers as a whole in France.

1.1.1 FOOD INDUSTRY

"Byproducts of vegetable and fruit are considered some of the most important agricultural export with value reaching LBP 1.2 billion in 2007, representing a share of 30% of the value of food and related products' exports"⁴⁸ This development has not been fully exhausted yet however as stated by some reports which point to the small share of manufacturing from fruit and vegetable product "representing no more than 15% to 20% from total production"⁴⁹

Table 14: Foreign trade value of agricultural products (2005-2007)

| Products | Value of Imports (Billion LL) | | | Value of Exports (Billion LL) | | |
|--|-------------------------------|-------|-------|-------------------------------|------|------|
| | 2005 | 2006 | 2007 | 2005 | 2006 | 2007 |
| Agro-food Industry | 908 | 928 | 1,290 | 266 | 264 | 335 |
| Total Agricultural Products (raw and manufactured) | 2,144 | 2,165 | 2,914 | 435 | 436 | 560 |

As for food and drink products manufacturing, the numbers show that it is the biggest industrial sector in Lebanon by most standards (number of enterprises, total labor force, number of employees, value added, revenues, etc.) except on the matter of fixed capital formation. This means that there is a potential to reduce investment in fixed assets in return for a higher added value.

⁴⁸ Footnote p 86 #51

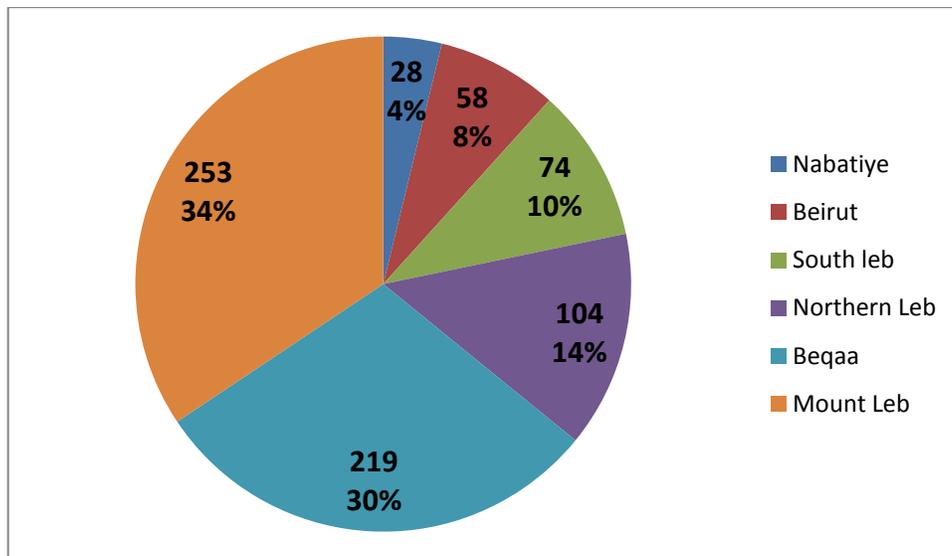
⁴⁹ Footnote #52

Table 15: Main economic indicators for food & beverage industrial production (2007)

| Food and Beverage Products | | | | | | | | |
|----------------------------|---------------------|------------|----------------|--------------------------|----------------|---------------|---------------------|--------------|
| Item | # of Establishments | Work force | # of Employees | Wages & Salaries (000\$) | Output (000\$) | Input (000\$) | Value-added (000\$) | GFCF (000\$) |
| Quantities | 736 | 20,607 | 18,915 | 131,632 | 1,748,453 | 1,192,337 | 556,116 | 41,104 |
| Percentage of Total | 18.2% | 24.9% | 25.3% | 24.0% | 25.7% | 25.2% | 26.9% | 13.9% |

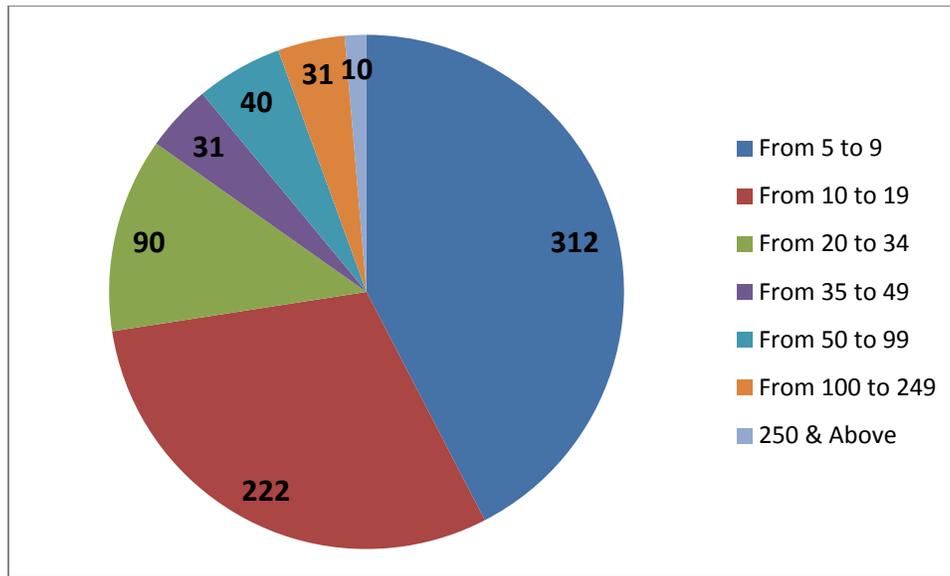
Food and Beverage manufacturing enterprises are spread all across the 6 governorates of Lebanon, with the governorate of North Lebanon housing 104 industrial enterprises, representing 14% of total food and beverage industries. The figure below represents their distribution by enterprise:

Graph 7: Distribution of food & beverage industrial establishments by Mohafaza (2007)



As for the structure of this industry, it is dominated by small enterprises with no more than 5 to 9 employees (42%). Another 30% of the enterprises have no more than 10 to 19 employees.

Graph 8: Distribution of food & beverage industrial establishments by workers (2007)



A study shows that it is possible to export manufactured food products to European markets and benefit from the increase in demand for exotic and foreign products in that region on the one hand and the increase in migrants to those countries. Targeting European markets however requires establishing known and reliable brand names. It also requires preserving and packing means specialized for the European consumer's taste such as packaging the products in glass containers so the consumer can see the product, which is proof of its quality.

1.1.2 TOURISM

Tourism is considered one of the main engines of development representing 5% of the world GDP, and 7% of worldwide jobs. In addition, it represents 30% of worldwide services export. It is possible to manage the tourism sector in developing countries to be commensurate with the goals of poverty reduction by achieving the interest of the poorer groups in local community in terms of employment in the tourism sector, providing services and products for tourists and developing local micro touristic establishments.⁵⁰

As for Lebanon, the direct contribution of tourism and travel to GDP is 9.4% (LBP 5,690 billion) in 2011; and it is estimated that this sector will grow by 4.3% on average per year to represent 9.7% of GDP in 2021.

⁵⁰ UNWTO and SNV, 2010. "Manual on Tourism and Poverty Alleviation, Practical Steps for Destinations."

Estimations also show that the overall contribution of the tourism and travel sector will also increase from 33.8% of GDP in 2011 (LBP 20,384 billion) in 2011 by an average of 4.3% a year to reach 34.7% of GDP in 2021 (estimated at LBP 31,059 billion).

This sector also provided 122 thousand jobs (representing nearly 9.1% of the total workforce) in 2011 and is estimated to grow by 1.9% yearly to 432 thousand jobs by 2021 (9.7% of total workforce). As for its overall contribution to the labor market – including the jobs it supports indirectly- it is estimated at 423 thousand jobs (32.2% of the total workforce) in 2011. It is set to grow by 1.8% on average annually to reach 516 thousand jobs by 2021 (34.1% of total workforce).

As for investment in the tourism and travel sector, estimates indicate that investment capital exceeded LBP 1,884.4 billion, or 10.2% of total investments in 2011. The sector is expected to experience an annual average growth rate of 4.4% in terms of capital investment reaching LBP 2,887.4 or 10.5% of total expected investment in 2021.

This booming sector is expected to play a major role in the regional development of Lebanon if the proper guiding strategy is adopted to manage this sector towards areas far from the main centers in hopes of developing new types of tourism such as ecotourism, rural tourism, encourage tourism which benefits the poor and many other such touristic activities (especially those which break the seasonal cycle of economic activity).

1.4 ACTION PLANS

Table 16a: Action plans for real estate sector

| SECTOR Real Estate | | | | | |
|--------------------|---|---|---|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 1 | Regulate the Real Estate Sector/Set the criteria that govern private property rights and real estate transactions | 1 | Establish an advisory committee including engineers and legal experts in order to review real estate and construction problems | Municipal union | Short-term |
| | | 2 | Establish a civil committee that includes owners of property rights (unsurveyed properties) | Advisory committee/local authorities | Short-term |
| | | 3 | Endeavor to resolve the most important ownership conflicts among residents | Advisory committee/local authorities/real estate judge | Short-term |
| | | 4 | Prepare a dossier on unsurveyed areas and follow up the issue with the Ministry of Finance and the Survey Department | Advisory committee/property right owners/local authorities | Medium-term |
| | | 5 | Settlement of communal lands and those owned by the state | Advisory committee/local authorities | Medium-term |
| | | 6 | Determining the area of communal lands and their zoning classifications, for reforestation projects and proper use of these lands by union of municipalities | Advisory committee/local authorities | Medium-term |
| | | 7 | Follow up on the settlement of inheritance cases and increase awareness of the importance of transfer of ownership registration and the mechanisms of this process | Advisory committee/local authorities | Long-term |
| | | 8 | Encourage the issuance of property deeds instead of "notifications", promote the registration of real estate transactions (property sales), and settle illegal occupation cases | Advisory committee/property right owners/local authorities | Long-term |

Table 16b: Action plans for real estate sector (cont'd)

| SECTOR Real Estate | | | | | | |
|--------------------|-------------------|-------|-------------|--|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY | |
| 2 | Regulate planning | urban | 9 | Empower local authorities to oversee urban planning issues and supervise construction activities | Municipal union | Short-term |
| | | | 10 | Establish an advisory committee (consisting of engineers and legal experts) to oversee urban planning and building regulations | Municipal union | Short-term |
| | | | 11 | Establish a civil body consisting of rights holders (building violations and industrial/crafts workshops) | Advisory committee/local authorities | Short-term |
| | | | 12 | Conduct a study on the status of buildings and building violations and the related social and urban factors | Advisory committee/local authorities | Short-term |
| | | | 13 | Conduct a study on the status of unexploited lands and offer urban planning recommendations which take into account each region's characteristics and the needs of its residents | Advisory committee/local authorities | Medium-term |
| | | | 14 | Prepare a dossier that includes a new zoning proposal and follow up on the issue with the Urban Planning Directorate | Advisory committee/property right owners/local authorities | Medium-term |
| | | | 15 | Prepare draft building regulations that take into account the characteristics of each region as well as the distinctions within each region and the various land uses | Advisory committee/property right owners/local authorities | Medium-term |
| | | | 16 | Review building permit fees in view of aligning them with property values and the expected return on investment within each region | Advisory committee/property right owners/local authorities | Medium-term |
| | | | 17 | Establish building and architectural requirements that are in line with the conditions and land uses particular to each region | Advisory committee/property right owners/local authorities | Medium-term |
| | | | 18 | Organize public awareness campaigns on the importance of urban planning and building regulations | Advisory committee/local authorities | Medium-term |
| | | | 19 | Follow up on the settlement of building violations and propose the adoption of amnesty periods during which penalties are reduced or eliminated | Advisory committee/local authorities | Long-term |
| | | | 20 | Implement proposals to transfer industrial/crafts workshops from main roads and town entrances into newly established industrial zones in major towns | Advisory committee/local authorities | Long-term |

Table 17a: Action plans for agricultural sector

| Agriculture Sector | | | | | |
|--------------------|---|----|---|---|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 3 | Studies on the modernization of agricultural production | 21 | Establish an advisory committee of agricultural engineers and improve the productivity of the various crops based on their production chain | Municipal union | Short-term |
| | | 22 | Conduct a study on the irrigation needs of various agricultural plots | Advisory committee/ local authorities/Agricultural Extension Bureau | Short-term |
| | | 23 | Conduct studies on the reduction of the cost of agricultural production | Advisory committee/ local authorities/Agricultural Extension Bureau | Short-term |
| | | 24 | Conduct studies on the diversification of potential markets | Advisory committee/ local authorities/Agricultural Extension Bureau | Medium-term |
| | | 25 | Conduct feasibility studies on potential new crops (custard apple or qashta, avocado, passion fruit, flowers, medicinal plants, etc.) | Advisory committee/ local authorities/Agricultural Extension Bureau | Medium-term |
| | | 26 | Conduct feasibility studies on the inclusion of protected winter crops (plastic or glass tents) | Advisory committee/ local authorities/Agricultural Extension Bureau | Medium-term |
| | | 27 | Conduct feasibility studies on the inclusion of organic crops (especially in large plots such as Jurd Mrebbine) | Advisory committee/ local authorities/Agricultural Extension Bureau | Medium-term |
| | | 28 | Inclusion of alternative crops that suit the region, and work on financing, developing and following up this matter | Advisory committee/ local authorities/Agricultural Extension Bureau | Medium-term |

| Agriculture Sector | | | | | |
|--------------------|---|----|--|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 4 | Address the problem of the pervasive small size of agricultural plots and the problems of small farmers | 29 | Organize awareness campaigns and reinstitute the traditions of collaboration and cooperation among residents | Advisory committee/local authorities | Short-term |
| | | 30 | Promote the creation of interregional agricultural cooperatives for small producers organized by type of product (fruits, vegetables, olives, etc.) | Advisory committee/local authorities | Short-term |
| | | 31 | Establish health insurance and retirement funds for small producers | Advisory committee/ local authorities/Agricultural Extension Bureau | Long-term |
| | | 32 | Conduct studies on the exploitation of arable lands and submit a proposal requesting the financial and technical support of the Green Project, then supervise the allocation of lands among small farmers | Advisory committee/ local authorities/Agricultural Extension Bureau/Green Plan | Medium-term |
| 5 | Diversify agricultural credit opportunities | 33 | Establish agencies for the financing of small businesses and the provision of facilitated agricultural loans | Advisory committee/local authorities/investors/immigrants | Short-term |
| 6 | Modernize agricultural practices and tools | 34 | Establish an agricultural equipment cooperative in charge of providing modern equipment that suits the characteristics of the land and the cultivated crops | Advisory committee/local authorities | Short-term |
| | | 35 | Establish an agricultural observatory to conduct soil analysis and measure humidity and other weather indicators that affect production and the selection of optimal crops and the best fertilizers, as well as their dosage and the timing of their application | Advisory committee/local authorities | Medium-term |

| Agriculture Sector | | | | | |
|--------------------|--|----|---|---|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 6 | Modernize agricultural practices and tools | 36 | Organize awareness campaigns on post-harvest operations and the proper techniques for maintaining the quality of the products | Advisory committee/local authorities/Agricultural Equipment Cooperative | Medium-term |
| | | 37 | Improve agricultural roads and create new ones wherever necessary | Local authorities | Medium-term |
| | | 38 | Submit a proposal to the Ministry of Agriculture for the establishment of a VTE establishments that offers various agricultural specialties (agricultural pharmacy, soil analysis, veterinary studies, etc.) in order to infuse the sector with local experts | Advisory committee/local authorities/Ministry of Agriculture | Medium-term |
| 7 | Modernizing irrigation | 39 | Upgrade irrigation channels to reduce waste and disseminating modern irrigation techniques (drop irrigation, tourniquets) | Advisory committee/local authorities/agricultural cooperatives | Short-term |
| | | 40 | Complete the Brissa dam project and its irrigation network | Local authorities/the Council for Development and Reconstruction | Short-term |
| | | 41 | Follow up on the installation of water reservoirs especially in drought areas | Local authorities/agricultural cooperatives/Green Plan | Short-term |
| | | 42 | Follow up on sanitation projects in order to ensure that irrigation water and water sources (open and underground) are free of pollution | Local authorities/the Council for Development and Reconstruction | Medium-term |
| | | 43 | Work toward expanding the scope of irrigated crops and ensuring the provision of water to areas that had previously been water-deprived | Advisory committee/local authorities | Medium-term |
| | | 44 | Establish a civil society unit to monitor the equitable distribution of irrigation water to various agricultural plots | Advisory committee/local authorities/agricultural cooperatives | Short-term |

| Agriculture Sector | | | | | |
|--------------------|--|----|--|---|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 8 | Enhance the quality of agricultural fertilizers and pesticides | 45 | Establish a local committee of farmers to monitor the quality of imported chemicals | Advisory committee/local authorities/agricultural cooperatives | Short-term |
| | | 46 | Follow up on the wastewater treatment project in order to ensure the production of agricultural fertilizers and their provision at competitive or subsidized prices | Local authorities/the Council for Development and Reconstruction | Medium-term |
| 9 | Enhance the quality of products | 47 | Organize awareness campaigns on the techniques of using chemicals and pesticides (quality, dosage, and timing), their impact on the health of consumers and the safety of farmers, and the need to control their use | Advisory committee/local authorities/agricultural cooperatives | Short-term |
| | | 48 | Enforce the regular testing of agricultural products and take the necessary steps to bring them into compliance with international standards | Advisory committee/local authorities/agricultural cooperatives | Medium-term |
| 10 | Improve the marketing of agricultural products | 49 | Lobby for the protection of local products against international competition | Local authorities/agricultural cooperatives/Ministry of Agriculture | Medium-term |
| | | 50 | Improve the operation of packaging and cooling centers and encourage them to apply for certificates of quality | Local authorities/IDAL | Medium-term |
| | | 51 | Encourage local authorities and agricultural cooperatives to establish packaging and cooling centers in the most prominent fruit-production zones in a way that responds to farmers' needs | Advisory committee/local authorities/agricultural cooperatives | Medium-term |
| | | 52 | Establish firms that specialize in labeling and exports | Advisory committee/local authorities/agricultural cooperatives | Medium-term |

| Agriculture Sector | | | | | |
|--------------------|--|----|--|---|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 10 | Improve the marketing of agricultural products | 45 | Establish a local committee of farmers to monitor the quality of imported chemicals | Advisory committee/local authorities/agricultural cooperatives | Short-term |
| | | 46 | Follow up on the wastewater treatment project in order to ensure the production of agricultural fertilizers and their provision at competitive or subsidized prices | Local authorities/the Council for Development and Reconstruction | Medium-term |
| 9 | Enhance the quality of products | 47 | Organize awareness campaigns on the techniques of using chemicals and pesticides (quality, dosage, and timing), their impact on the health of consumers and the safety of farmers, and the need to control their use | Advisory committee/local authorities/agricultural cooperatives | Short-term |
| | | 48 | Enforce the regular testing of agricultural products and take the necessary steps to bring them into compliance with international standards | Advisory committee/local authorities/agricultural cooperatives | Medium-term |
| 10 | Improve the marketing of agricultural products | 49 | Lobby for the protection of local products against international competition | Local authorities/agricultural cooperatives/Ministry of Agriculture | Medium-term |
| | | 50 | Improve the operation of packaging and cooling centers and encourage them to apply for certificates of quality | Local authorities/IDAL | Medium-term |
| | | 51 | Encourage local authorities and agricultural cooperatives to establish packaging and cooling centers in the most prominent fruit-production zones in a way that responds to farmers' needs | Advisory committee/local authorities/agricultural cooperatives | Medium-term |
| | | 52 | Establish firms that specialize in labeling and exports | Advisory committee/local authorities/agricultural cooperatives | Medium-term |
| | | 53 | Lobby for the opening of the Qleiat airport in order to facilitate export and expand the range of potential markets | Local authorities/agricultural cooperatives | Long-term |
| | | 54 | Organize advertisement and marketing campaigns | Local authorities/agricultural cooperatives/immigrants/businessmen/IDAL | Medium-term |
| | | 55 | Participate in international expos and fairs in order to increase the confidence of foreign consumers in Lebanese products | Local authorities/agricultural cooperatives/IDAL | Medium-term |

Table 18a: Action plans for primary sector other than agriculture

| Primary sector activities that are complementary to agriculture Sector | | | | | |
|--|----------------------------|----|--|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 11 | Promote livestock breeding | 56 | Establish a sectoral committee of stakeholders involved in livestock production | Municipal union | Short-term |
| | | 57 | Organize awareness campaigns on the importance of domestic livestock breeding | Local authorities/sectoral committee | Short-term |
| | | 58 | Lobby for the subsidization of animal feed and veterinary drugs | Local authorities/sectoral committee | Medium-term |
| | | 59 | Encourage the creation of livestock farms (cattle and poultry) | Local authorities/sectoral committee | Medium-term |
| | | 60 | Raise awareness on breeding practices that protect the environment and assign special areas for grazing | Local authorities/sectoral committee | Medium-term |
| | | 61 | Provide support to beekeepers (drugs, awareness on fighting bee diseases, reducing tariffs on the import of queens and other products) | Local authorities/beekeeper cooperatives | Medium-term |
| | | 62 | Establish a new slaughterhouse that complies with the health and environmental standards | Municipal union | Short-term |
| | | 63 | Follow up on the proposal to establish fish farms around river tributaries (trout, salmon) | Municipal union/tourism corporation | Long-term |
| 12 | Agro food industry | 64 | Establish manufacturing corporations | Municipal union/investors/immigrants | Long-term |
| | | 65 | Establish a large factory for the production of various agro food products from fruits and vegetables | Manufacturing corporations | Long-term |
| | | 66 | Bring agro food products closer to the tastes of European consumers (conservation and packaging techniques) | Manufacturing corporations | Long-term |
| | | 67 | Train women in agro food production | Manufacturing corporations | Long-term |
| | | 68 | Establish dairy factories | Manufacturing corporations | Long-term |
| | | 69 | Establish honey production and packaging factories | Local authorities/beekeeper cooperatives | Short-term |
| | | 70 | Establish modern olive presses | Manufacturing corporations | Medium-term |
| | | 71 | Establish industrial wood factories that manufacture wood from pruning branches | Manufacturing corporations | Medium-term |

Table 18a: Action plans for primary sector other than agriculture

| Tourism Sector | | | | | |
|----------------|--|-------------------|--|---|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 13 | Promote summer tourism | 72 | Organize advertising campaigns in Lebanon and the Gulf aiming to improve the image of the region, emphasize its strengths (website, tourism newsletter (or magazine), advertisements, television station, etc.) | Municipal union/tourism agencies | Short-term |
| | | 73 | Establish a corporation for the development and management of tourism-related projects | Municipal union/tourism agencies | Short-term |
| | | 74 | Establish a specialized office for the handling of tourist affairs and the follow up of any complaints | Municipal union | Short-term |
| | | 75 | Recommend and follow up the establishment of public leisure and sports sites (parks, squares, sports arenas, recreation facilities) | Local authorities | Medium-term |
| | | 76 | Establish social clubs (or country clubs) that include indoor pools | Municipal union/tourism corporation | Medium-term |
| | | 77 | Provide notable natural sites with proper infrastructure in order to motivate the establishment of restaurants, cafés, and parks (e.g. Oyoum El Samak and Jhannam valley, the area under Zahlan grotto-the river delta, the base of Mount Sfireh, Al Hamam valley, Mount Al Arbaain, Brisa Lake, Jord Al Njas, etc.) | Municipal union/Local authorities/investors | Medium-term |
| | | 78 | Relaunch the Sir Teleferique project | Municipal union/tourism corporation/owners of old property rights | Long-term |
| | | 79 | Adopt the Beqaasafrine model in other towns (Bqarsouna, Mazraat Katran) and call for their classification as touristic towns | Local authorities/investors | Long-term |
| | | 80 | Organize summer festivals that include concerts and expos that feature local products | Municipal union | Short-term |
| | | 81 | Create a local product market in one of the old souks | Municipal union | Medium-term |
| | | 82 | Rehabilitate old historical houses and convert them into tourist lodges | Local authorities/investors | Medium-term |
| | | 83 | Establish a shooting club and range | Investors | Long-term |
| 84 | Organize a fundraising campaign for the completion of the Dream Castle (Qasr Al Ahlam) project | Local initiatives | Short-term | | |

| Tourism Sector | | | | | |
|----------------|---|----|---|--------------------------------------|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 14 | Diversify the groups targeted by touristic activities | 85 | Provide the "five villages" with a special catalytic role for the growth of tourism in the region by promoting the opening of restaurants and ball rooms (weddings) in select natural sites | Municipal union/investors/immigrants | Long-term |
| | | 86 | Upgrade the road network that links the five villages to other Dinnieh regions (linking them to the Northern part of Dinnieh) and to the qaza of Zgharta | Municipal union | Medium-term |
| 15 | Promote ecotourism | 87 | Finalize the decision to create the three natural reserves and implement the decision | Municipal union | Short-term |
| | | 88 | Link the reserves to each other by a network of roads | Municipal union | Short-term |
| | | 89 | Complete the "Darb Al Ghaba" project, install its related infrastructure, and train the necessary human resources | Municipal union | Short-term |
| | | 90 | Coordinate with the "Darb Al Jabal" project and support it through advertising campaigns | Municipal union | Short-term |
| | | 91 | Coordinate with the "Tarhal" project and support it through advertising campaigns and including other Dinnieh regions within the scope of its hostels | Municipal union | Short-term |
| | | 92 | Follow up on the project of establishing a National Park | Municipal union | Long-term |
| | | 93 | Organize climbing competitions to the top of Mount Al Arbaain | Municipal union/tourism corporation | Short-term |
| | | 94 | Organize hiking trips to Qornet Al Saouda | Municipal union/tourism corporation | Short-term |
| | | 95 | Establish camping sites | Municipal union/tourism corporation | Medium-term |

| Tourism Sector | | | | | |
|----------------|---|-----|---|---|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 16 | Promote rural tourism | 96 | Conduct a study to select the villages that retain their rural character and the types of activities that attract tourists (participation of residents in agricultural activities, traditional naturally prepared food, traditional houses, hiking) | Municipal union | Medium-term |
| | | 97 | Train villagers to receive tourists and manage small touristic projects | Municipal union | Medium-term |
| 17 | Promote winter tourism/Break the seasonality of the tourism sector | 98 | Study the feasibility of implementing winter sports projects (on the slopes of Mount Makmel) | Municipal union/tourism corporation | Long-term |
| | | 99 | Specify areas in several locations for skiing activities (especially in Qornet As-sawda, Jourd An-jass, Mrebinne, Qarassya ...) and arrange for the necessary infrastructure | Municipal union/tourism corporation | Long-term |
| 18 | Promote historical & archeological tourism/Highlight historical heritage/Emphasize the long history of the region/Accept the idea of cultural diversity/Define the history of Dinnieh as part of the history of Lebanon and the region/Highlight the role of women in Dinnieh's history | 100 | Conduct archaeological excavations | Ministry of Culture | Short-term |
| | | 101 | Establish a museum to host archaeological finds | Citizen committee/Ministry of Culture | Medium-term |
| | | 102 | Conduct historical studies on the discovered sites and archaeological artifacts | Researchers/Citizen committee | Long-term |
| | | 103 | Publish a book on the ancient history of the populations and civilizations of Dinnieh | Researchers/Citizen committee | Long-term |
| | | 104 | Produce an advertisement bulletin for the archaeological sites | Municipal union/Researchers/Citizen committee | Medium-term |
| | | 105 | Launch an awareness campaign (conferences, school visits) on the history of Dinnieh | Researchers/Teachers/Citizen committee | Medium-term |
| 18 | Promote historical & archeological tourism | 106 | Develop the major archeological sites to receive visitors and tourists (Fort Sfireh, Fort Aishah Al Bashtania, Fakhreddine Tower, Fort An-namroud ...) | Municipal union/Citizen committee/Ministry of Culture | Long-term |
| | | 107 | Develop a program for archeological and historical tourism that includes trips to villages | Citizen committee/Tourist guides | Long-term |

Table 20a: Action plans for environment sustainability

| Environment Sector | | | | | |
|--------------------|--|-----|--|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 19 | Environmental awareness | 108 | Promote the creation of an environmental association | Municipal union | Short-term |
| | | 109 | Organize awareness campaigns on the importance of the environment and its sustainability | Local authorities/environmental associations | Short-term |
| | | 110 | Organize public cleanliness campaigns in the regions | Local authorities/environmental associations | Short-term |
| 20 | Prevent environmentally harmful practices | 111 | Regulate the cutting of trees and prevent harmful activities according to a management plan and proper land uses of the forests areas | Municipal union/environmental associations | Medium-term |
| | | 112 | Disallow bird hunting | Municipal union/environmental associations | Medium-term |
| | | 113 | Organize the pastures, and monitor and regulate environmentally harmful grazing | Local authorities/environmental associations | Medium-term |
| | | 114 | Monitor and regulate quarries | Municipal union/environmental associations | Short-term |
| | | 115 | Ban polluting industries | Municipal union/environmental associations | Medium-term |
| | | 116 | Require environmental impact assessments for all medium and large developmental and investment projects | Local authorities/environmental associations | Medium-term |
| | | 117 | Control agricultural practices that pollute land and water resources and cause harm to public health | Local authorities/environmental associations/agricultural cooperatives | Medium-term |
| 21 | Monitor the implementation of projects that preserve the environment | 118 | Monitor the implementation of the sanitation network and wastewater treatment projects | Local authorities/environmental associations | Medium-term |
| | | 119 | Monitor the "Jurd Mrebbin environmental center" project | Local authorities/AID2 | Short-term |
| 22 | Design new projects | 120 | Install waste disposal mechanisms (recycling, fermentation, fertilization) | Municipal union | Long-term |
| | | 121 | Organize reforestation campaigns | Local authorities/environmental associations | Medium-term |
| | | 122 | Produce a forests management plan and identify the means of benefiting from forests and ways to sustain their biological diversification | Local authorities/environmental associations | Medium-term |
| | | 123 | Organize beautification campaigns on quarry sites | Local authorities/environmental associations | Medium-term |

Table 21a: Action plans for infrastructure

| Infrastructure Sector | | | | | |
|-----------------------|--------------------------|-----|---|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 23 | Upgrade the road network | 124 | Complete the linkage of the "five villages" to the remaining Dinnieh regions (Karm el Mohr-Izal-Bakhaaoun-Beshtayel-Beit Kanj road with a connection to Beit Hasna and Deir Nbouh, and Karm el Mohr-Bqaasafrine road) | Municipal union/Ministry of Public Works | Medium-term |
| | | 125 | Complete Minieh-Dinnieh Road through Azqi | Municipal union/Ministry of Public Works | Medium-term |
| | | 126 | Complete the hanging bridge over Al Hamam valley which links Bqarsouna to Nimrine | Municipal union | Medium-term |
| | | 127 | Complete the Sir Bypass which links Sir to Bakhaaoun | Municipal union/Council for Development and Reconstruction | Short-term |
| | | 128 | Complete all road works including new roads, paving, expansion, and maintenance (according to the studies of the municipal union) | Municipal union/Ministry of Public Works | Medium-term |
| | | 129 | Upgrade the main roads that link Dinnieh to neighboring qaza (Akkar, Zgharta, and Tripoli) | Municipal union/Ministry of Public Works | Medium-term |
| | | 130 | Improve road conditions (lighting, support walls, mirrors, sidewalks, gutters) | Municipal union/Ministry of Public Works | Medium-term |
| 24 | Electricity | 131 | Continue lobbying for increasing the supply of electricity | Municipal union/Ministry of Water and Power Resources | Short-term |
| | | 132 | Continue pressure groups activities to finalize the electricity station in Aassoun (the 66 kV) | Municipal union/Ministry of Water and Power Resources | Short-term |
| | | 133 | Continue lobbying for 24-hour electrical supply in touristic areas | Municipal union/Ministry of Water and Power Resources | Short-term |
| | | 134 | Procure generators for dense neighborhoods | Local authorities | Short-term |
| | | 135 | Establish a committee to address the issue of steeling electricity and steeling electrical cables | Local authorities | Short-term |
| | | 136 | Study the feasibility of generating electricity by installing dams (Taran-Nabaa El Bir, Al Hamam valley-Zahlan grotto, Daraya-Bayt Jawik, Jhannam valley-Qemmamine) and wind generators (the slopes of Mount Makmel) | Municipal union | Long-term |

| Infrastructure Sector | | | | | |
|-----------------------|------------------------|-----|---|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 25 | Drinking water network | 137 | Follow up on the drinking water network project with CDR | Municipal union/Council for Development and Reconstruction | Short-term |
| 26 | Sanitation | 138 | Complete the sanitation project | Municipal union/Council for Development and Reconstruction | Short-term |
| | | 139 | Continue studying the feasibility of establishing a wastewater treatment plant | Municipal union/Council for Development and Reconstruction | Medium-term |
| | | 140 | Prioritize the installation of a sanitation network in Izal due to the negative impact on the environment, public health, and the water of Rachaaïne spring | Municipal union/Council for Development and Reconstruction | Short-term |
| 27 | Communications | 141 | Strengthen telecommunication networks by adding Base Transceiver Stations (BTS), especially in rural areas | Municipal union | Short-term |
| | | 142 | Publicize internet | Municipal union | Short-term |
| 28 | Solid waste collection | 143 | Establish a corporation for the collection and disposal of solid waste | Municipal union | Long-term |
| | | 144 | Establish a plant for the disposal, triage, and recycling of solid waste | Municipal union | Long-term |

Table 22a: Action plans for education

| Education Sector | | | | | |
|------------------|------------------------------------|-----|---|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 29 | New schools and VTE establishments | 145 | Establish a public school complex in Bakhaaoun | Local authorities/Council for Development and Reconstruction | Short-term |
| | | 146 | Build public schools in Asoun and Bqarsouna | Local authorities/Ministry of Education | Short-term |
| | | 147 | Organize a lobbying campaign for the establishment of a secondary school in Izal | Local authorities/Ministry of Education | Medium-term |
| | | 148 | Complete the Dayr Nbouh VTE establishment | Local authorities | Short-term |
| | | 149 | Complete the dossier that requests the establishment in Sir of a VTE establishment that specializes in agricultural specialties like agricultural pharmacy, veterinary studies, soil analysis, and agro food production | Municipal union/Ministry of Agriculture | Medium-term |
| | | 150 | Establish a school for persons with disabilities | Municipal union | Medium-term |
| 30 | School buildings and equipment | 151 | Maintain and rehabilitate old school buildings which were initially designed for residential use | Local authorities/Ministry of Education | Medium-term |
| | | 152 | Provide schools with necessary facilities (libraries, playgrounds, theaters, laboratories) | Local authorities/Ministry of Education | Medium-term |
| | | 153 | Furnish schools with necessary equipment (computers, heating systems, transpiration, laboratory equipment) | Local authorities/Ministry of Education | Medium-term |
| | | 154 | Update school curricula | Ministry of Education | Medium-term |
| 31 | School curricula | 155 | Adapt curricula to the circumstances of rural areas (student orientation) | Ministry of Education | Medium-term |
| | | 156 | Incorporate modern educational methods and techniques | Ministry of Education | Medium-term |
| | | 157 | Promote the inclusion of extracurricular activities (art projects, school trips) | School management | Short-term |

| Education Sector | | | | | |
|------------------|------------------------------------|-----|---|--|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 32 | Teachers | 158 | Train teachers and unify the efforts of all the parties involved in training | Teachers' Academy | Short-term |
| | | 159 | Accept contractual teachers into the cadre | Ministry of Education | Short-term |
| | | 160 | Recruit teachers with certain qualifications (foreign languages) | Ministry of Education | Short-term |
| | | 161 | Introduce a teacher's evaluation system | Ministry of Education | Medium-term |
| 33 | Awareness and assistance campaigns | 162 | Organize awareness campaigns on the importance of education, the prevention of dropping out, reducing child labor, and the provision of support and assistance to children in difficult circumstances | Local authorities/local community/teachers | Short-term |
| | | 163 | Providing schools with a health and social counselor | Ministry of Education | Short-term |

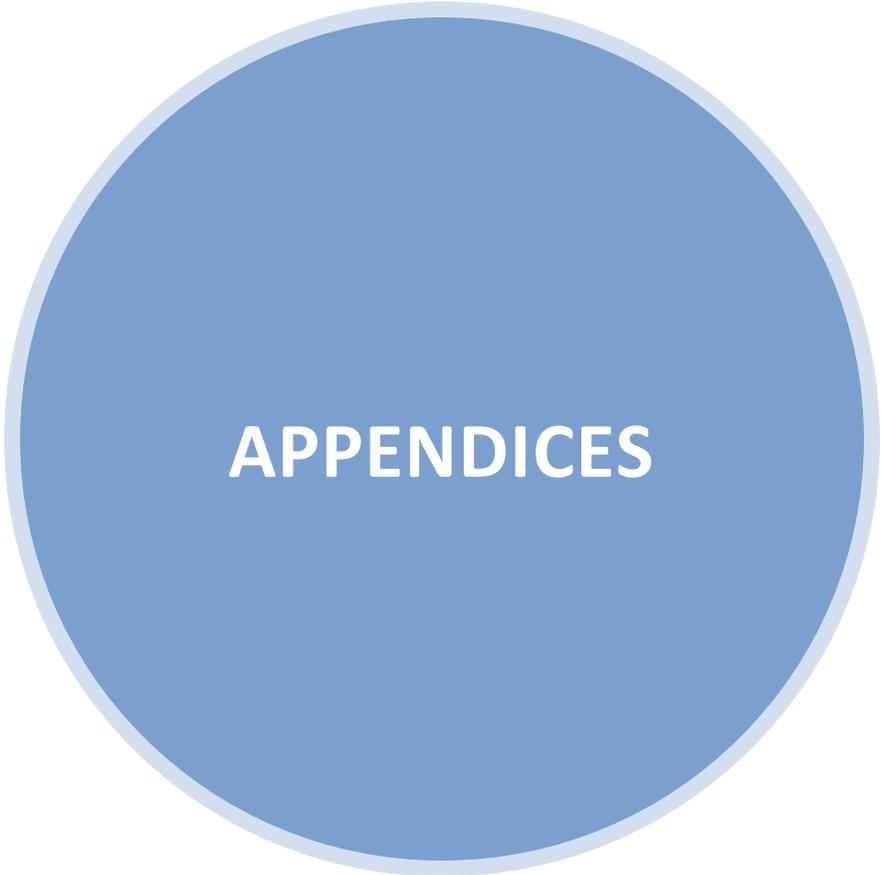
Table 23: Action plans for health services

| Health Sector | | | | | |
|---------------|-------------------------------------|-----|---|-------------------------------------|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 34 | Increase access to medical services | 164 | Establish primary health care centers managed by municipalities | Municipal union/local medical staff | Medium-term |
| | | 165 | Organize awareness campaigns on diseases and means of prevention | Local medical staff/local community | Short-term |
| | | 166 | Use the patient database in the newly computerized medical centers in order to study the health status of the local community and follow its progress | Ministry of Health | Medium-term |
| | | 167 | Provide chronic disease medications | Ministry of Health | Short-term |
| | | 168 | Conduct vaccination campaigns and ensure the timely vaccination of the local population | Local medical staff/local community | Short-term |
| | | 169 | Implement a project of mobile dispensaries to reach remote locations that do not have access to medical care | Municipal union/local medical staff | Medium-term |
| | | 170 | Establish one day clinics in mountainous areas | Municipal union/local medical staff | Medium-term |
| | | 171 | Establish a specialty hospital that tackles the most common illnesses | Ministry of Health | Long-term |

Table 24a: Action plans for civil society and institutions

| Local government and civil society Sector | | | | | |
|---|---|-----|--|---|-------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 35 | Local authorities | 172 | Complete the establishment of the Qaemaqam headquarters | Ministry of Interior and Municipalities | Short-term |
| 36 | Resolve the issues of newly created residential areas | 173 | Transfer civil registries to newly created residential communities | Municipal union | Medium-term |
| | | 174 | Request the election of mukhtars for small villages and municipal councils for larger ones | Municipal union | Medium-term |
| 37 | Empower local authorities | 175 | Organize campaigns to lobby for administrative decentralization and the reduction of oversight bodies | Municipal union | Short-term |
| | | 176 | Secure sufficient financial resources for municipal councils | Municipal union | Short-term |
| | | 177 | Encourage the participation of women in municipal councils and local elections | Local authorities/local community | Short-term |
| | | 178 | Secure the membership of all municipal councils in the Dinnieh municipal union | Municipal union | Short-term |
| | | 179 | Promote the participation of local residents in development work through municipal committees | Local authorities | Short-term |
| | | 180 | Empower local authorities and strengthen their ability to initiate, follow up, implement, and monitor development projects | Municipal union | Short-term |
| | | 181 | Resolve the human resource problems of municipalities | Municipal union/Ministry of Interior and Municipalities | Medium-term |

| Local government and civil society Sector | | | | | |
|---|-----------------------------|-----|---|--|------------|
| | OBJECTIVES | | ACTION PLAN | RESPONSIBLE PARTIES | PRIORITY |
| 38 | Empower the local community | 182 | Encourage the creation of cultural associations, non-governmental organizations, sports clubs, and public libraries | Local authorities/local community | Short-term |
| | | 183 | Organize campaigns to raise the residents' awareness of their rights and responsibilities in terms of civil society and collaborative work and of taking public responsibility and of the importance of the common interest | Local authorities/local community | Short-term |
| | | 184 | Emphasize the role of women in civil and developmental work and endeavor to create productive work opportunities for women | Local authorities/local community | Short-term |
| | | 185 | Implement women empowerment programs | Local authorities/local community | Short-term |
| | | 186 | Empower the youth, encourage them to become active in civil society, and create activities tailored to their interests and the issues they face | Local authorities/local community | Short-term |
| | | 187 | Work to find common grounds among the interests of civil society groups, local authorities, and the public and private sectors | Local authorities/local community | Short-term |
| | | 188 | Emphasize the preeminence of development and local community collaboration over political, familial, and sectarian disagreements | Local authorities/local community | Short-term |
| | | 189 | Strengthen the role of citizen monitoring and oversight over local authorities and the good functioning of developmental projects | Local authorities/local community | Short-term |
| | | 190 | Endeavor to resolve sectarian conflicts whenever necessary and encourage the return (at least seasonally) of those who deserted the area for that reason | Local authorities/local community | Short-term |
| 39 | Family planning | 191 | Organize a family planning program | Social service centers/local community | Short-term |
| | | 192 | Raise awareness of the dangers of intermarriage and the means to reduce the risk of genetic diseases | Social service centers/local community | Short-term |
| | | 193 | Educate women on child rearing issues | Social service centers/local community | Short-term |



APPENDICES

Appendix 1: Population distribution by village (cluster one)

| Cluster One | | | | | | | |
|-----------------|-----------------------|----------------------------------|--------------------------------------|-------------------------|-------------------------|------------------------|-----------------|
| Village | Registered Population | Permanent Residents - Registered | Permanent Residents - not Registered | Residents during Winter | Residents during Summer | Moved to other Regions | Migrated Abroad |
| BAKHAAOUN | 11,569 | 5,200 | 600 | 5,800 | 7,500 | 1,800 | 4,600 |
| SIR | 8,858 | 4,000 | 100 | 4,100 | 6,000 | 1,700 | 3,100 |
| BQAA SAFRINE | 5,420 | 975 | Marginal | 975 | 20,000 | 3,250 | 1,200 |
| BQARSOUNA | 4,836 | 2,900 | 275 | 3,100 | 4,200 | 1,450 | 480 |
| AASSOUN | 3,625 | 1,500 | 50 | 1,550 | 2,700 | 700 | 1,400 |
| HAQL EL AAZIMEH | 1,933 | 950 | 100 | 950 | 1,800 | 500 | 500 |
| MRAH ES SRAYJ | 1,663 | 900 | 300 | 1,200 | 1,220 | 200 | 550 |
| HARF ES SAYAD | 809 | 650 | Marginal | 650 | 650 | Marginal | 150 |
| OUATIEYEH | 719 | 525 | 85 | 610 | 730 | 70 | 120 |
| KHARNOUB | 370 | 235 | Marginal | 235 | 285 | 35 | 100 |
| MAZRAAT KETRANE | 0 | × | 60 | 60 | 250 | × | × |
| Total | 39,802 | 17,835 | 1,570 | 19,230 | 45,335 | 9,705 | 12,200 |

Appendix 2: Population distribution by village (cluster two)

| Cluster Two | | | | | | | |
|----------------|-----------------------|----------------------------------|--------------------------------------|-------------------------|-------------------------|------------------------|-----------------|
| Village | Registered Population | Permanent Residents - Registered | Permanent Residents - not Registered | Residents during Winter | Residents during Summer | Moved to other Regions | Migrated Abroad |
| SFIREH | 9,425 | 2,300 | Marginal | 2,300 | 6,500 | 6,600 | 500 |
| QARSAITA | 4,960 | 2,530 | Marginal | 2,530 | 4,117 | 2,180 | 250 |
| BTERMAZ | 3,332 | 2,500 | 20 | 2,520 | 2,950 | 750 | 120 |
| TARANE | 3,171 | 2,000 | Marginal | 2,000 | 2,500 | 300 | 800 |
| NIMRINE | 3,116 | 600 | 10 | 610 | 2,460 | 2,260 | 250 |
| BEIT EL FAQS | 2,995 | 2,300 | Marginal | 2,300 | 2,800 | 599 | 100 |
| QATTINE | 2,203 | 1,700 | 260 | 1,960 | 2,150 | 200 | 300 |
| MRAH ES SFIREH | 1,232 | 120 | 15 | 135 | 1,000 | 500 | 600 |
| AIN ET TINEH | 1,174 | 1,000 | 25 | 1,025 | 1,100 | 100 | 70 |
| HAZMIYEH | 474 | 310 | 40 | 350 | 450 | 50 | 120 |
| QRRAINE | 271 | 60 | 20 | 80 | 120 | 160 | 50 |
| Total | 32,353 | 15,420 | 390 | 15,810 | 26,147 | 13,699 | 3,160 |

Appendix 3: Population distribution by village (cluster three)

| Cluster Three | | | | | | | |
|---------------|-----------------------|----------------------------------|--------------------------------------|-------------------------|-------------------------|------------------------|-----------------|
| Village | Registered Population | Permanent Residents - Registered | Permanent Residents - not Registered | Residents during Winter | Residents during Summer | Moved to other Regions | Migrated Abroad |
| QARHAIYA | 1,918 | 1,400 | 200 | 1,600 | 2,200 | 450 | 50 |
| KFAR BEBNINE | 1,830 | 450 | 15 | 465 | 1,300 | 1,300 | 100 |
| DEBAAEL | 1,812 | 1,450 | 500 | 1,950 | 2,000 | 350 | 50 |
| BEIT HAOUIK | 1,365 | 500 | Marginal | 500 | 1,000 | 850 | 20 |
| QEMMAMINE | 962 | 370 | Marginal | 370 | 400 | 600 | Marginal |
| HAOUARA | 920 | 0 | 270 | 270 | 300 | 700 | 200 |
| QARNE | 0 | × | 85 | 85 | 150 | 65 | 0 |
| JAYROUN | 0 | × | 1,150 | 650 | 850 | 500 | 0 |
| AASSAYMOUT | 0 | × | 15 | 15 | 15 | 10 | 0 |
| Total | 8,807 | 4,170 | 2,235 | 5,905 | 8,215 | 4,825 | 420 |

Appendix 4: Population distribution by village (cluster four)

| Cluster Four | | | | | | | |
|---------------|-----------------------|----------------------------------|--------------------------------------|-------------------------|-------------------------|------------------------|-----------------|
| Village | Registered Population | Permanent Residents - Registered | Permanent Residents - not Registered | Residents during Winter | Residents during Summer | Moved to other Regions | Migrated Abroad |
| KFAR HABOU | 3,812 | 2,500 | 500 | 3,000 | 2,800 | 100 | 1,200 |
| AAZQAI | 3,046 | 2,500 | 500 | 3,000 | 3,200 | 180 | 350 |
| MARKEBTA | 1,670 | 1,100 | 150 | 1,250 | 1,250 | 100 | 500 |
| RAOUDA | 1,119 | 650 | 250 | 900 | 900 | 450 | 25 |
| KFAR CHELLANE | 999 | 600 | 3,500 | 4,100 | 4,100 | 100 | 300 |
| TERBOL | 421 | 50 | 0 | 50 | 100 | 300 | 70 |
| Total | 11,067 | 7,400 | 4,900 | 12,300 | 12,350 | 1,230 | 2,445 |

Appendix 5: Population distribution by village (cluster five)

| Cluster Five | | | | | | | |
|--------------|-----------------------|----------------------------------|--------------------------------------|-------------------------|-------------------------|------------------------|-----------------|
| Village | Registered Population | Permanent Residents - Registered | Permanent Residents - not Registered | Residents during Winter | Residents during Summer | Moved to other Regions | Migrated Abroad |
| IZAL | 3,845 | 2,850 | 9,000 | 11,850 | 12,050 | 600 | 400 |
| DEIR NBOUH | 1,516 | 1,200 | 1,500 | 2,700 | 2,700 | 30 | 300 |
| BEIT ZOUD | 0 | × | 925 | 800 | 800 | 100 | 25 |
| Total | 5,361 | 4,050 | 11,425 | 15,350 | 15,550 | 730 | 725 |

Appendix 6: Population distribution by village (cluster six)

| Cluster Six | | | | | | | |
|-----------------|-----------------------|----------------------------------|--------------------------------------|-------------------------|-------------------------|------------------------|-----------------|
| Village | Registered Population | Permanent Residents - Registered | Permanent Residents - not Registered | Residents during Winter | Residents during Summer | Moved to other Regions | Migrated Abroad |
| KARM EL MOHR | 1,837 | 500 | 0 | 500 | 800 | 150 | 1,200 |
| AAYMAR | 1,269 | 600 | 0 | 600 | 1,300 | 600 | 100 |
| ZGHARTAGHRINE | 959 | 400 | 0 | 400 | 500 | 100 | 500 |
| KAFF EL MALLOUL | 720 | 520 | 80 | 600 | 650 | 40 | 160 |
| BEHOUITA | 625 | 175 | 0 | 175 | 700 | 250 | 200 |
| Total | 5,410 | 2,195 | 80 | 2,275 | 3,950 | 1,140 | 2,160 |