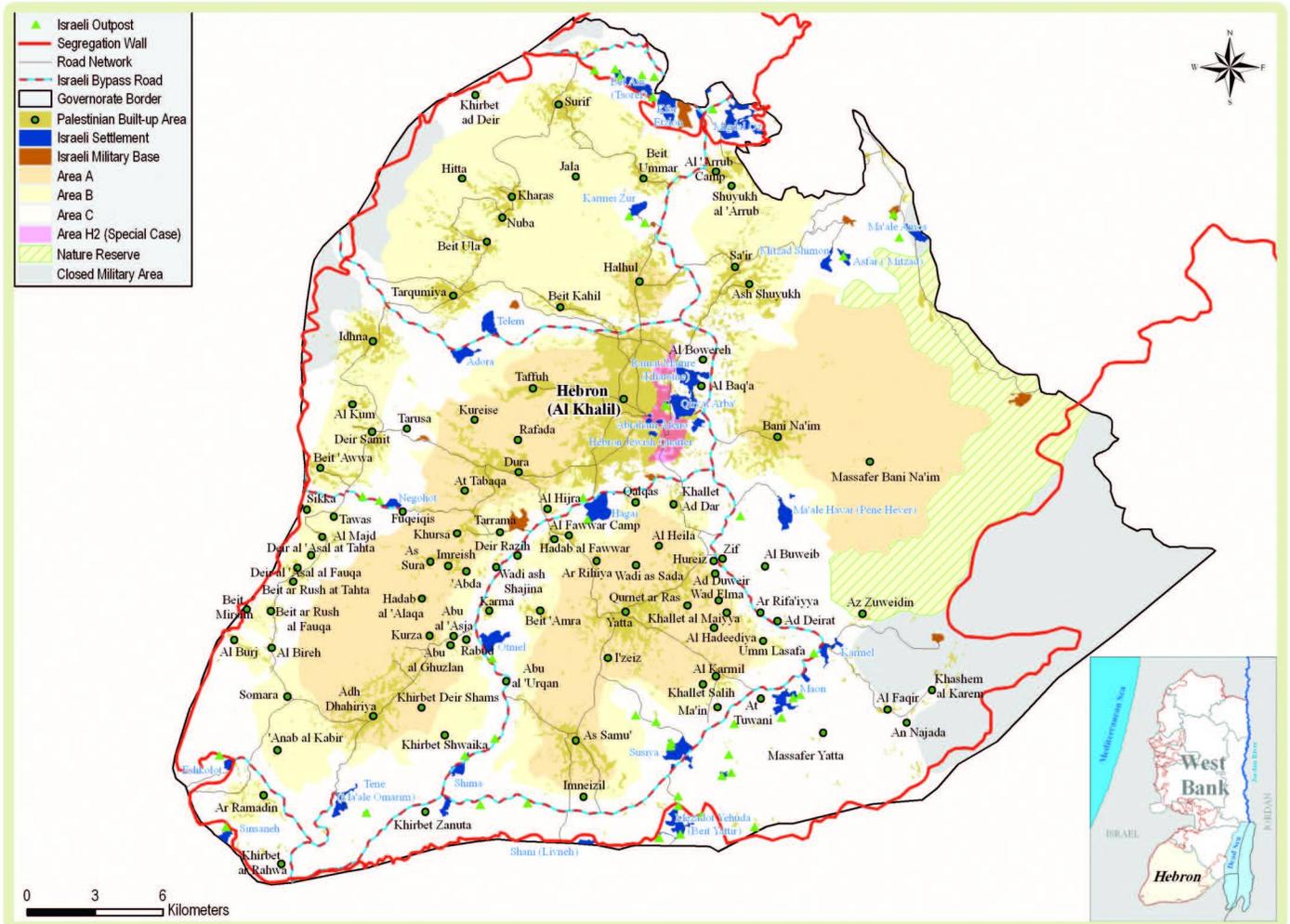


# Locality Profiles and Needs Assessment in the Hebron Governorate



Locality Profiles and Needs Assessment in the Hebron Governorate

Prepared by



The Applied Research Institute - Jerusalem (ARIJ)

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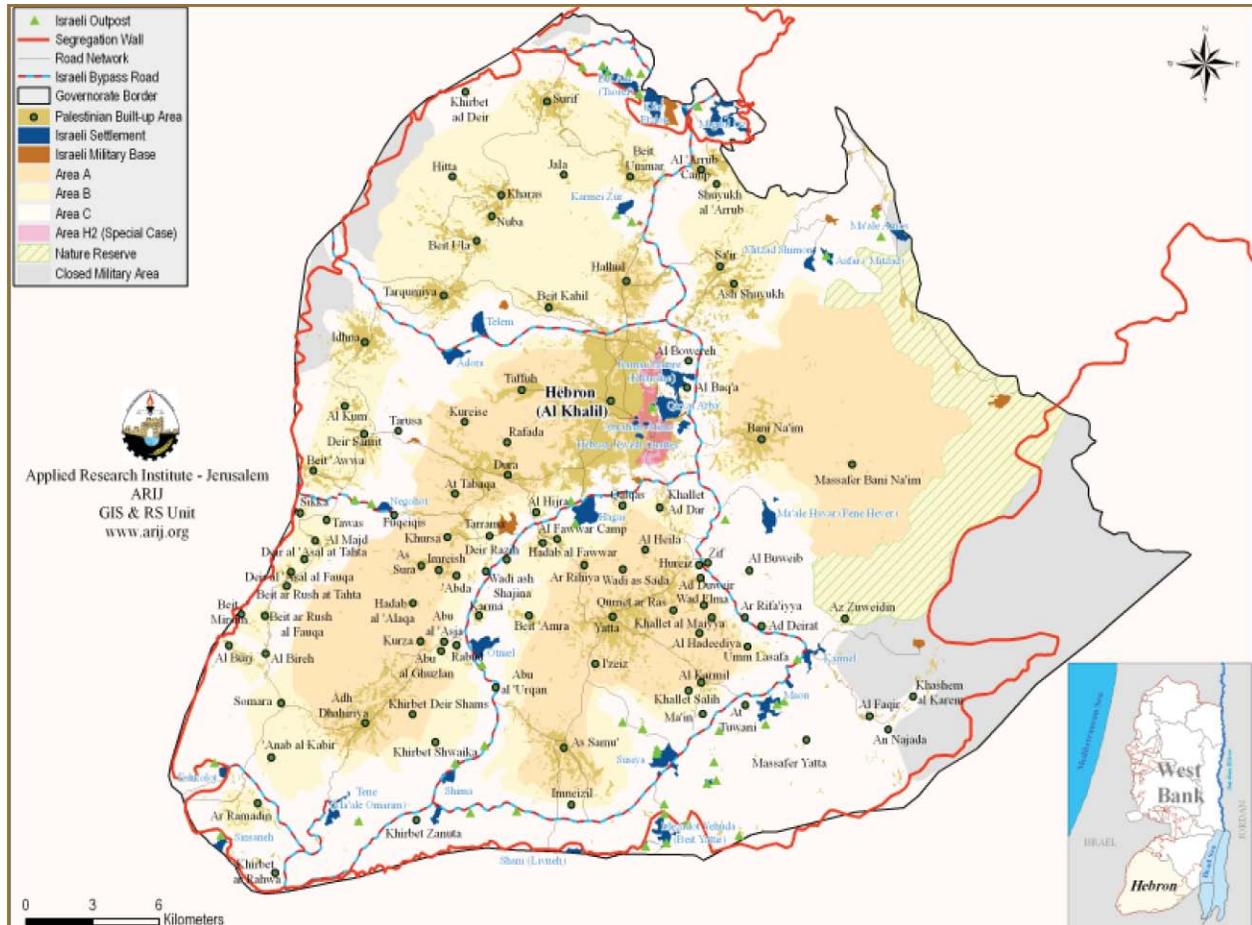
Spanish Cooperation



Azahar program

2009

# Locality Profiles and Needs Assessment in the Hebron Governorate



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**PART ONE**  
**Introduction**

This book comes as a result of a comprehensive study of all localities in the Hebron Governorate, which aims at depicting the overall living conditions in the governorate and presenting developmental plans to assist in developing the livelihood of the population in the area. It was accomplished through the ‘Village Profiles and Azahar Needs Assessment for Hebron Governorate’; a project funded by the Spanish Agency for International Cooperation for Development (AECID) and the Azahar Program.

## 1.1. Project Description and Objectives:

The ‘Village Profiles and Azahar Needs Assessment for Hebron Governorate’ was designed to study, investigate, analyze and document the socio-economic conditions and the needed programs and activities to mitigate the impact of the current unsecure political, economic and social conditions in the Hebron Governorate. There was particular focus on the Azahar program objectives and activities concerning **water, environment, and agriculture**.

The project’s objectives were to survey, analyze and document the available natural, human, socio-economic and environmental resources, and the existing limitations and needs assessment for the development of the rural and marginalized areas in Hebron Governorate. In addition, the project aimed at preparing strategic developmental programs and activities to mitigate the impact of the current political, social, and economic instability with the main focus on the **agricultural sector**.

## 1.2. Project Activities:

### 1.2.1. Data Collection:

There are two different administrative boundaries for the localities in the Palestinian Territories. The first was set by the British during the Mandate of Palestine, while the second was set by the Israeli Authorities during the occupation of the Palestinian Territories. However, although old, the British Mandate divisions were chosen for this study, since they are more suitable than the Israeli divisions, and they fit more into the Palestinian context.

According to the British Mandate of Palestine, Hebron Governorate was divided into 20 main administrative boundaries. These 20 boundaries were classified into three clusters; Northern Hebron Cluster, Central Hebron Cluster, and Southern Hebron Cluster. The following table presents the different administrative boundaries by cluster.

**Table (1): Name of Administrative Boundaries by Cluster:**

No	Northern Hebron Cluster	No	Central Hebron Cluster	No	Southern Hebron Cluster
1	Beit Aula	15	Hebron	17	Edh Dhahiriya
2	Beit Kahil	16	Dura	18	Es Samu'
3	Khirbet Jamrura			19	Ar Rihya
4	Beit Ummar			20	Yatta
5	Halhul				
6	Idhana				
7	Kharas				
8	Nuba				
9	Surif				
10	Taffuh				
11	Tarqumiya				
12	Si'ir				
13	Esh Shuyukh				
14	Bani Na'im				

**1.2.2. Data Analysis:**

A community questionnaire was developed and filled by locality officials across the governorate under the supervision of the project specialists.

The data provided in the questionnaire, as well as other data from the Palestinian Central Bureau of Statistics (PCBS), the Ministry of Agriculture (MoA), the Ministry of Health (MoH) and the Ministry of Education and Higher Education (MOHE) were analyzed and put together in one village profile, which includes data about Demography, History, Education, Economy, Natural Resources, Agriculture, Infrastructure, Institutions and Services.

ARIJ GIS unit developed the explanatory maps for each locality. Each profile contains 3 maps; a location map, an information map, and a land use/land cover map.

90 locality profiles were developed, which include all major and minor localities in Hebron Governorate. In addition, each profile contains a list of each locality's developmental needs and priorities. The locality profiles and this book are available on the internet.

**1.2.3. Participatory Rapid Appraisal (PRA) Workshops:**

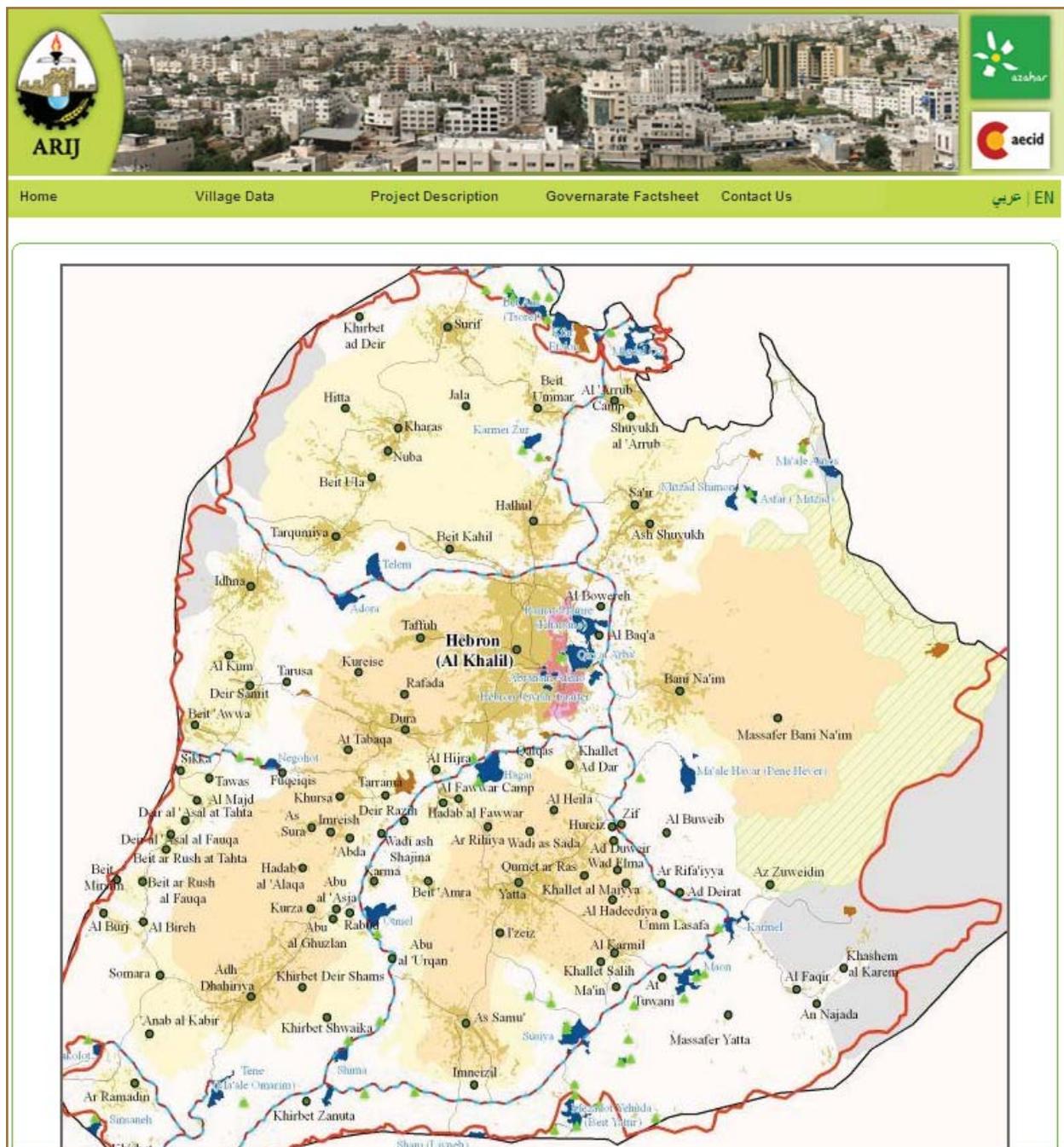
Several meetings, interviews and focus groups were conducted with farmers, local authorities and active institutions in the area in order to do a collective analysis, upon which all development plans will be based.

The aim of the Participatory Rapid Appraisal (PRA) was to learn from the communities and the institutions working for these communities about their knowledge, attitudes and practices concerning agriculture and the management of their natural resources, and to enable local people to assess these issues, and make their own plans to address them.

Six PRA workshops took place in the Joint Service Councils Halhul, Dura, Yatta, and Sa'ir and in the Municipality of Adh Dhahiriya. The collected data was documented, analyzed and several developmental plans and projects were formulated. Several workshops on the community level will be conducted to discuss the prepared locality profiles and to provide the localities with the printed locality profiles.

#### 1.2.4. Internet Database:

The Computer and Information Technology (IT) unit in ARIJ developed a database for the locality profiles in both languages; Arabic and English. All data was posted on the internet in a well organized and comprehensive database; easy to navigate and accessible to all. The profiles, maps, and factsheets for every locality can be found at the following website: <http://proxy.arij.org/vprofile/>



**PART TWO:**  
**Socio-economic Conditions**  
**in the Hebron Governorate**

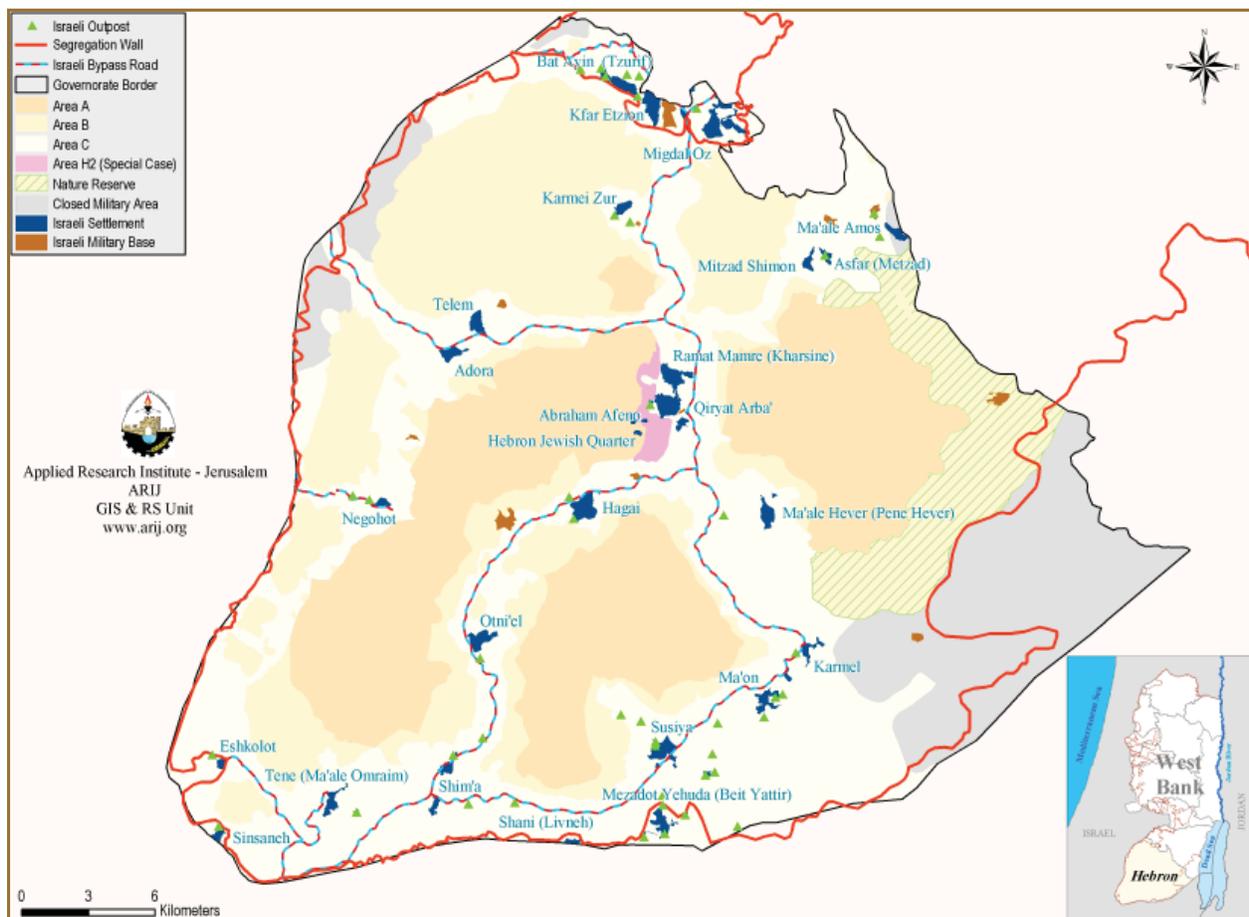
## 2.1. Location and Physical Characteristics

The Hebron Governorate is located 36 km south of the city of Jerusalem, in the southern part of the West Bank. It is bordered by the Bethlehem Governorate to the north and the 1949 Armistice Line (Green Line) in all other directions.

The Hebron Governorate has a total area of 1,067 km<sup>2</sup>, with six major land use classes distinguished. These are: Palestinian built up areas, Israeli settlements, closed military areas and bases, natural reserves, forests and cultivated areas. (See map 1)

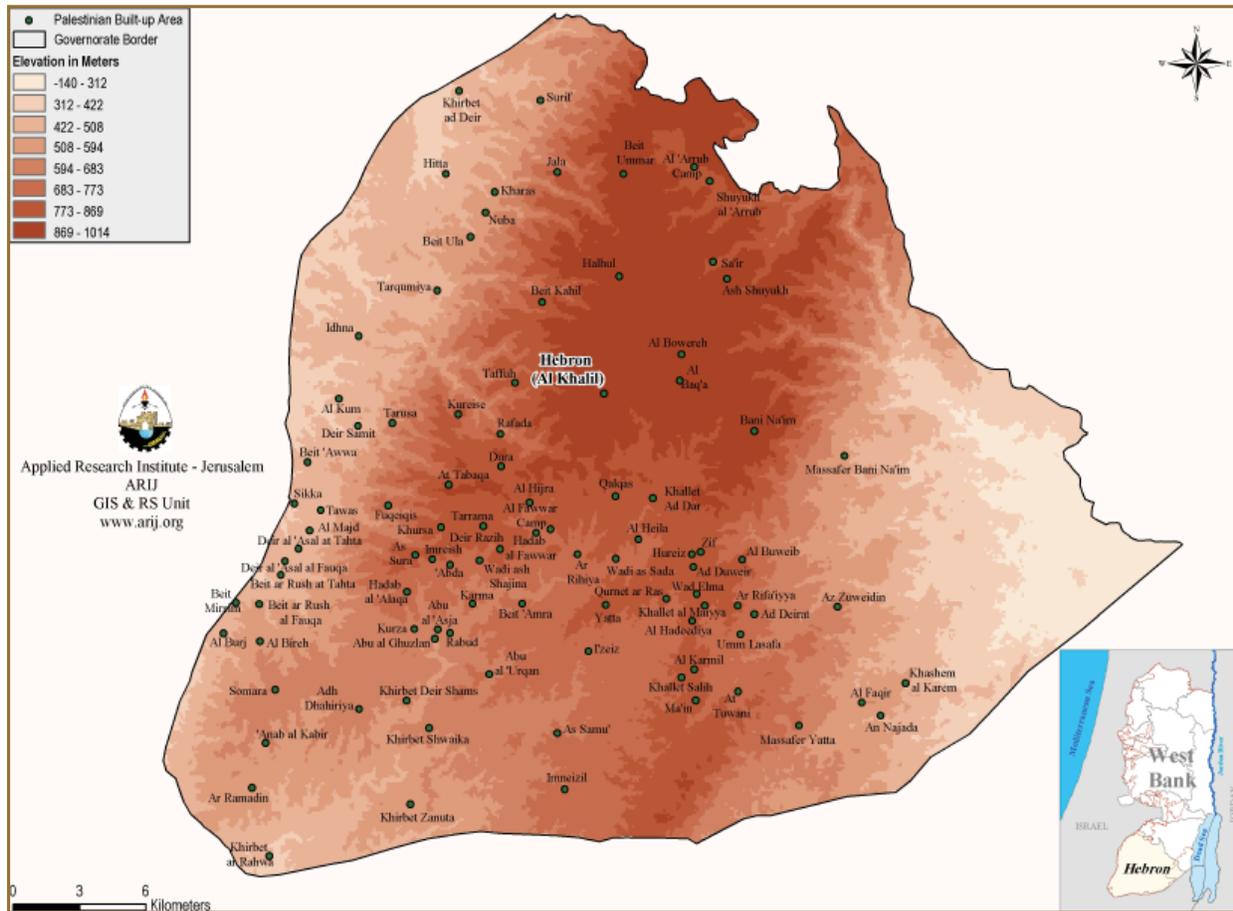
There are 182 Palestinian built-up areas in the Hebron Governorate, 17 of which are run by municipalities; compared with only four municipalities in the year 1994. These municipalities are Hebron, Halhul, Yatta, Dura, Surif, Kharas, Beit Ula, Tarqumiya, Idhna, Beit Ummar, Sa'ir, Esh Shuyukh, Bani Na'im, Taffuh, As Samu', Edh Dhahiriya, and Beit Awwa. There are also two refugee camps in the governorate, which are Al Fawwar and Al 'Arrub Refugee Camps, these are run by refugee camp committees. Other built-up areas are run by village councils, project committees. Palestinian built-up areas comprise 7.9% of the total area of the Hebron Governorate compared with 3.6% in the year 1994. (See table 19 & *ARIJ Environmental Profile Volume 3: Hebron District. October, 1995*)

**Map (1): Location and Borders of Hebron Governorate**



The Hebron Governorate is characterized by great variation in its topography and altitude. The Governorate is dominated by the Mountain Belt on the western side of the Jordan Rift Valley. Its elevation varies between 140 below sea level to 1,014 m above sea level. The highest point is 1,014 m above sea level at Halhul, which is also the highest point in the West Bank. The lowest elevation is 140 m below sea level at Ar Rawain area. (See map 2)

**Map (2): Topography of Hebron Governorate**

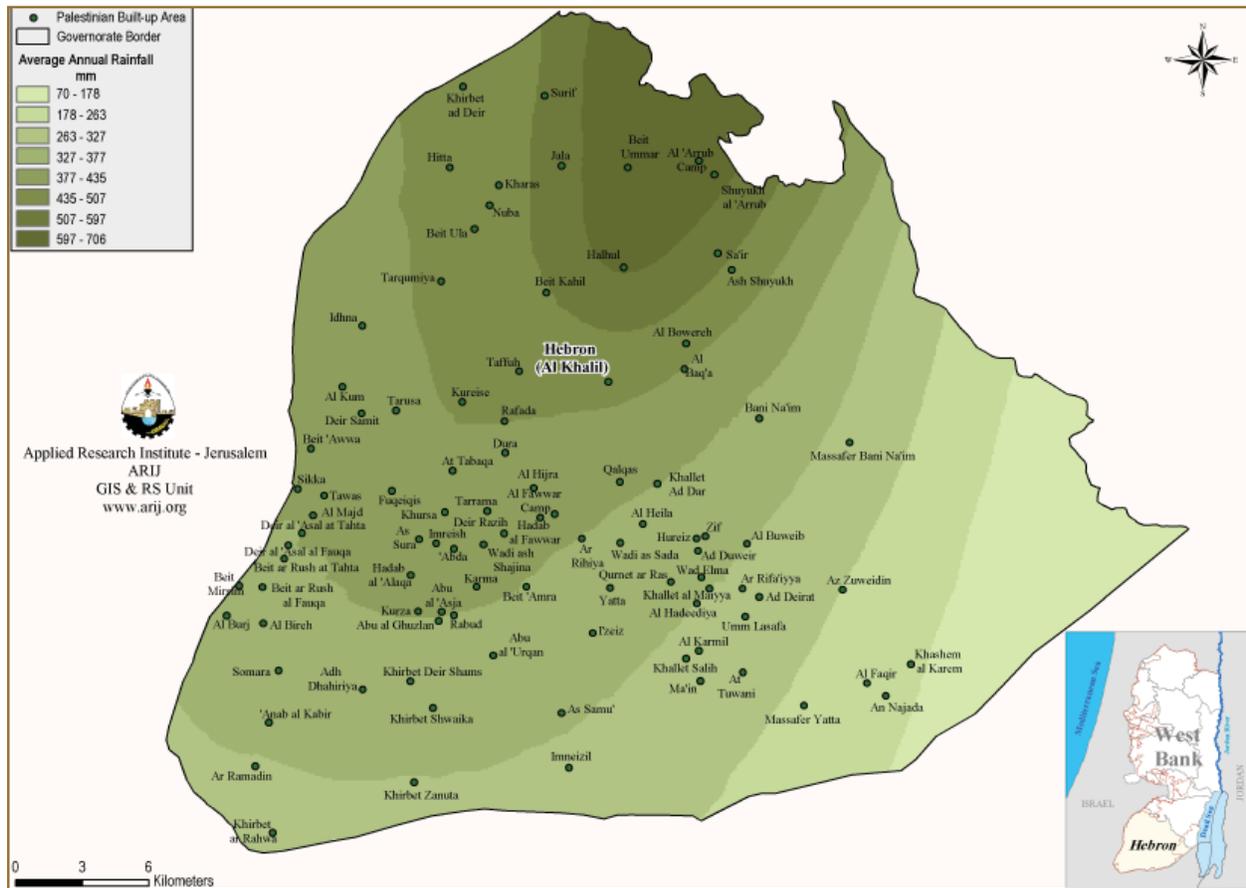


The climate of the Hebron Governorate ranges from arid to semi-arid; with an increase in aridity towards the Negev Desert in the south, and the Jordan Valley in the east.

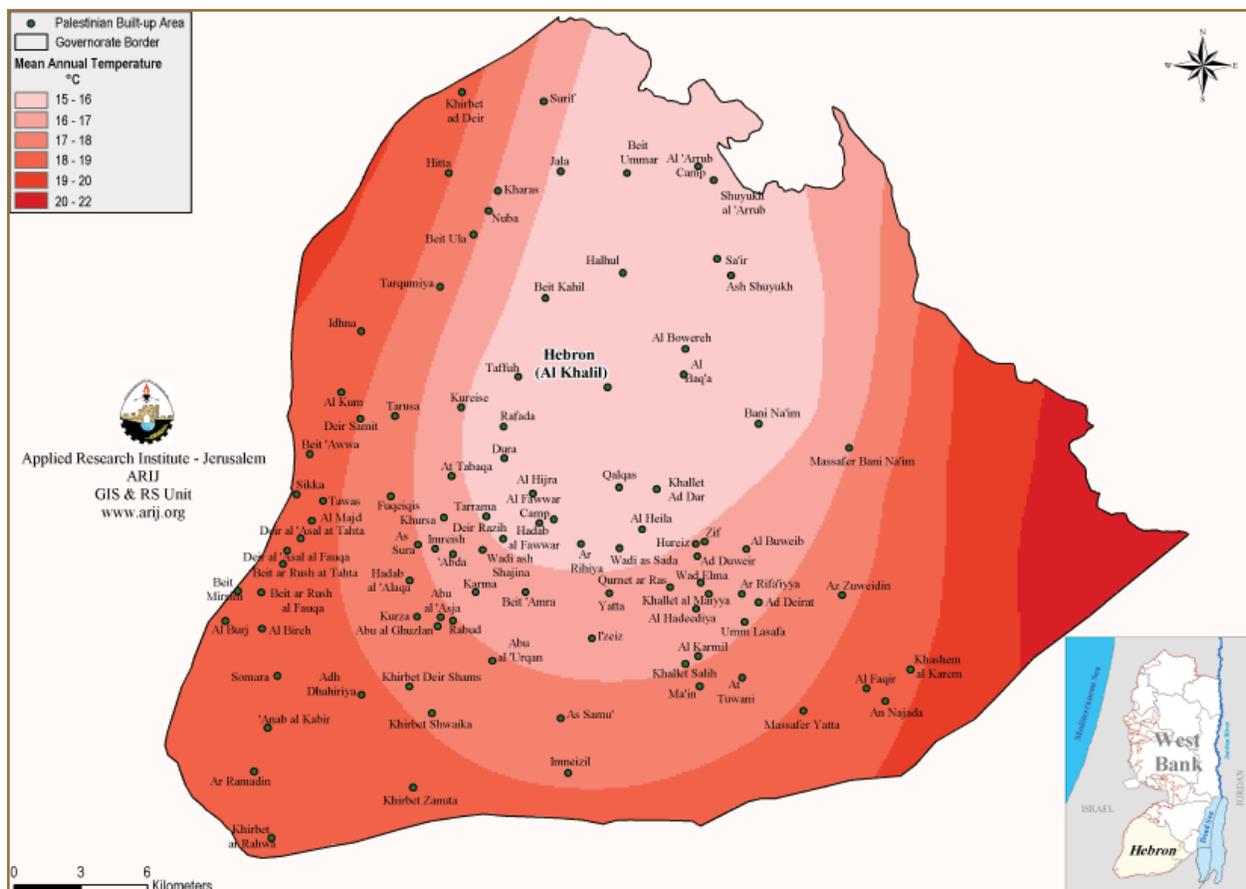
Summers in the Hebron Governorate are hot and dry, while the quantity of mean rainfall varies from year to year. The mean annual rainfall in the Hebron Governorate is 473.5 mm; noting that the north western parts of the governorate enjoy greater amounts of rainfall. Most of the rain falls during December through February, although there may be rain from mid-October to the end of April.

The average annual temperature in the Hebron Governorate is 18° C (ranges from 7.5-10° C in the winter to 22° C in the summer), and the average annual humidity is 57%. (See maps 3 and 4) (ARIJ GIS Unit, 2008)

**Map (3): Rainfall in Hebron Governorate**



**Map (4): Temperature in Hebron Governorate**



## 2.2. Population

The total population of the Hebron Governorate in 2007 was 552,164 <sup>1</sup>, forming about 23.6% of the total population of the West Bank. Table (2) compares the population of the Hebron Governorate in 1997 and 2007.

**Table (2): Total Population of Hebron Governorate in 1997 and 2007**

Years	1997			2007		
	Male	Female	Households	Male	Female	Households
<b>Hebron Governorate</b>	199,843	190,429	57,866	281,570	270,594	89,919

(PCBS 2008, Population, Housing and establishment, Census -2007, Final Results)

According to the PCBS classifications <sup>2</sup>; about 85.3% of the population in the Hebron Governorate live in urban areas, and 12.1% live in rural areas, while 2.6% lives in refugee camps. (See table 3) It is worth noting that in 1994, 42% of the Palestinian communities in the Hebron Governorate were living in rural areas. (ARIJ Environmental Profile Volume 3: Hebron District. October, 1995.)

**Table (3): Total Population of Hebron Governorate by Type of Locality and Sex, 2007**

Type of Locality	Male	Female	Total	% of Total Population
Urban	240,660	230,501	471,161	<b>85.3</b>
Rural	33,531	32,987	66,518	<b>12.1</b>
Camp	7,379	7,106	14,485	<b>2.6</b>
<b>Total</b>	<b>281,570</b>	<b>270,594</b>	<b>552,164</b>	<b>100</b>

(PCBS 2008, Population, Housing and establishment, Census -2007, Main Indicators by Locality Type, 2009)

The 2007 PCBS Census showed that 44.7% of the population in the Hebron Governorate were less than 15 years of age, while 51.7% were in the age group 15-64, and 3.6% were 65 years old and above. The sex ratio in the village was 104 males for every 100 females with males constituting 51% of the population and females 49%. (See table 4)

**Table (4): Total Population of the Hebron Governorate by Age Group and Sex, 2007**

Years	Age Group				Total
	0-14	15-64	65+	Not stated	
<b>Male</b>	123,004	14,2299	6,513	2,664	274,480
<b>Female</b>	117,728	13,6013	7,505	2,534	263,780
<b>Total</b>	<b>240,732</b>	<b>278,312</b>	<b>14,018</b>	<b>5,198</b>	<b>538,260</b>

(PCBS 2008, Population, Housing and establishment, Census -2007, Final Results)

<sup>1</sup> Includes population counted during the period 1-16/12/2007 and uncounted population estimates according to post enumeration survey.

<sup>2</sup> \* Urban area is any locality whose population amounts to 10,000 persons or more. This applies to all governorates' centers regardless of their size. Additionally, it refers to all localities whose population varies from 4,000 to 9,999 persons provided they have at least four of the following elements: public electricity network, public water network, post office, health center with a full-time physician and a school offering a general secondary education certificate.

\* Rural area is any locality whose population is less than 4,000 persons or whose population varies from 4,000 to 9,999 persons but lacking four of the aforementioned elements.

\* Refugee camp is any locality referred to as a refugee camp and administered by the United Nations Relief and Work Agency for Palestinian Refugee in the Near East (UNRWA).

## 2.3. Labor Force

In terms of economy, the Hebron Governorate registered the highest unemployment rate among the West Bank Governorates, which reached 25.9% in 2008 compared with an average of 19% for the West Bank. (see table 5)

**Table (5): Labor Force Participation Rate, Unemployment Rate and Average Daily Wage in NIS for Wage Employees in Hebron Governorate, 2008**

Average Daily Wage in NIS for Wage Employees	Unemployment Rate	Labor Force Participation Rate	Governorate
73.6	25.9	46	Hebron
<ul style="list-style-type: none"> <li>• Israel and Settlements are excluded.</li> <li>• (PCBS, Labor Force Survey, Annual Report: 2008, April 2009)</li> </ul>			

In 2008, the agricultural sector ranked first in the number of working persons in Hebron Governorate with 21.7%, then quarrying sector with 18.8% and ranked third with 18.2% commerce and the restaurant and hotel industries.

**Table (6): Percentage Distribution of Employed Persons in the Hebron Governorate by Economic Activity, 2008**

Economic Activity	Governorate	
	Hebron	West Bank
Agriculture, Hunting and Fishing	21.7	14.3
Mining, Quarrying and Manufacturing	18.8	14.9
Construction	14.7	14.5
Commerce, Restaurants and Hotels	18.2	20.8
Transportation, Storage and Communication	3.6	4.9
Services and other branches	23	30.6
<b>Total</b>	<b>100</b>	<b>100</b>
<i>(PCBS, Labor Force Survey, Annual Report: 2008, April 2009)</i>		

The private sector has the biggest share of the employed persons in the Hebron Governorate followed by the public sector with 15.8%, whereas a percentage of 10.9 of the labor force in the Hebron Governorate work in Israel and other Israeli settlements.

**Table (7): Percentage Distribution of Employed Persons Aged 15 Years and Above in Hebron Governorate by Sector (ILO Standards), Oct- Dec, 2008**

Governorate	(% ) Sector				Total
	Public Sector	Private Sector	Other Sectors	Israel and Settlements	
Hebron	15.8	72.6	0.7	10.9	100
West Bank	15.4	65.2	3.2	16.2	100
<i>(PCBS, Labor Force Survey, Round Q4/2008)</i>					

The 2007 PCBS census in the Hebron Governorate showed that 65.56% of the population was within the working age group (10 years and above). Of the 367,514 people within the working

age range (10 years and above), approximately 115,976 (31.56%) were economically active (in the labor force), and 250,481 (68.16%) were not economically active (outside the labor force). Of the economically active, 82.6% were males. The largest groups within the non-economically active population were students and housekeepers, constituting 54.1% and 35.22% of that population respectively. Table (8) shows the labor force statistics in the Hebron Governorate in 2007.

**Table (8): Hebron population (10 years and above) by sex and employment status, 2007**

Sex	Economically Active				Non Economically Active					Total	Not Stated	Total
	Employed	Currently Unemployed	Unemployed (Never worked)	Total	Students	House-keeping	Unable to work	Not working & Not looking for work	Other			
M	86,498	7,465	8,768	102,731	67,339	372	10,989	1,779	3,588	84,067	683	187,481
F	10,619	561	2,065	13,245	68,090	87,867	8,232	469	1,756	166,414	374	180,033
T	97,117	8,026	10,833	115,976	135,429	88,239	19,221	2,248	5,344	250,481	1,057	367,514

(PCBS, Population, Housing and Establishment Census-2007 Final Results, 2008)

## 2.4. Educational Status

According to the 2007 PCBS census, 6.75% of residents were illiterate; women comprised a greater percentage (70.9%) of the illiterate population than men (29.1%). Of the literate population, 14.8% could read and write, 25.88% had completed elementary education, 28.66% had completed preparatory education, 14.25% completed their secondary education and only 9.51% had achieved a higher education. Table (9) shows the education status in the Hebron Governorate by sex and educational attainment in 2007.

**Table (9): Population (10 Years and above) in Hebron Governorate by Sex and Educational Attainment, 2007**

Sex	Educational Attainment											Total
	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Not Stated	
M	7,223	28,191	51,676	53,835	26,645	6,592	11,327	250	1,112	444	186	187,481
F	17,581	26,311	43,448	51,485	25,731	5,657	9,244	92	217	27	240	180,033
T	24,804	54,502	95,124	105,320	52,376	12,249	20,571	342	1,329	471	426	367,514
% of T	6.75	14.83	25.88	28.66	14.25	3.33	5.60	0.09	0.36	0.13	0.12	100.00

(PCBS, Population, Housing and Establishment Census-2007 Final Results, 2008)

The Hebron Governorate is divided into 3 educational directorates; the third one was established in the year 2007/2008. The governmental sector has the biggest share of schools in Hebron Governorate, which is about 85.7% of the total number of schools.

There are 2 refugee camps in Hebron Governorate. There are 17 schools administered by the UN-RWA, of which 4 are for males, 11 for females and 2 co-educational. The private sector has the

smallest portion in the educational system in the Hebron Governorate. There are 46 private schools; 34 of them are coeducational.

**Table (10): Distribution of Schools in the Hebron Governorate by Supervising Authority and Gender, 2007/2008**

Directorate	Government				UNRWA				Private				Grand Total			
	M	F	Co-ed	Total	M	F	Co-ed	Total	M	F	Co-ed	Total	M	F	Co-ed	Total
North Hebron	49	39	9	97	0	1	0	1	2	1	8	11	51	41	17	109
Hebron	52	60	5	117	2	6	0	8	4	2	23	29	58	68	28	154
South Hebron	53	57	55	165	2	4	2	8	2	1	3	6	57	62	60	179
Hebron Governorate	154	156	69	379	4	11	2	17	8	4	34	46	166	171	105	442

*M: Male, F: Female, Co-ed: Coeducation (MOHE, Schools Statistics of 2007/2008)*

88.6% of the students in the Hebron Governorate attend governmental schools, and 6.4% attend the UNRWA schools, whereas only 5.5% attend private schools. There is no big difference between the participation of females and males in the educational system. Female students constitute 50.2%, while males constitute 49.8% of students in the Hebron Governorate.

**Table (11): Distribution of Students in the Hebron Governorate by Supervising Authority and Gender, 2007/2008**

Directorate	Government			UNRWA			Private			Grand Total		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
North Hebron	20,184	17,689	37,873	0	1,282	1,282	1,139	707	1,846	21,323	19,678	41,001
Hebron	24,020	26,141	50,161	1,797	3,839	5,636	4,004	2,234	6,238	29,821	32,214	62,035
South Hebron	31,329	31,598	62,927	1,941	2,135	4,076	924	407	1,331	34,194	34,140	68,334
Hebron Governorate	75,533	75,428	150,961	3,738	7,256	10,994	6,067	3,348	9,415	85,338	86,032	171,370

*M: Male, F: Female, Co-ed: Coeducation (MOHE, Schools Statistics of 2007/2008)*

There is a shortage of classrooms in the Hebron Governorate, and many schools have a 2 shifts system. Furthermore, the classes are overcrowded. In the governmental sector there are 32 students per class, in the UNRWA schools there are 36 students per class, and in the private sector there are 26 students per class.

**Table (12): Distribution of Classes in the Hebron Governorate by Supervising Authority and Gender, 2007/2008**

Directorate	Government				UNRWA				Private				Grand Total
	M	F	Co-ed	Total	M	F	Co-ed	Total	M	F	Co-ed	Total	
North Hebron	605	522	56	1,183	0	32	0	32	24	17	34	75	1,290
Hebron	710	768	21	1,499	48	102	0	150	58	46	139	243	1,892
South Hebron	828	849	380	2,057	41	47	34	122	24	10	17	51	2,230
Hebron Governorate	2,143	2,139	457	4,739	89	181	34	304	106	73	190	369	5,412

*M: Male, F: Female, Co-ed: Coeducation (MOHE, Schools Statistics of 2007/2008)*

## 2.5. Health Status

The health sector in Hebron Governorate faces a lot of challenges. Apart from the Israeli procedures which obstruct the work of medical staff and bound people's access to health care centers, the health sector in the governorate suffers from lack of funding, lack of medical staff, lack of hospitals and health care centers, and lack of medical supplies and modern equipments.

In Hebron Governorate, there are 147 health care centers; 84% of these centers are run by the governmental sector. (See table 13) There are also 5 general hospitals and another 5 maternity hospitals; however, half of these are located in Hebron city. (See table 14) All hospitals are located on the eastern parts of the governorate; people from small and distant villages face great difficulties reaching to these hospitals.

**Table (13): Distribution of Public Health Care Centers in Hebron Governorate by Provider, 2007**

Total Population	Providers			Total	Population per Center
	MoH	NGOs	UNRWA		
562,141	124	16	7	147	3,824

*(MoH-PHIC, Health Status in Palestine 2007, Sept 2008)*

Furthermore, excluding Alia and Al Ahli Hospitals, hospitals in the Hebron Governorate are small in size, can only accommodate between 10 and 25 patients, and are poorly equipped. Many patients from Hebron Governorate go to Bethlehem Governorate Hospitals to seek medical care, especially those who live in villages of close proximity to the Bethlehem Governorate.

**Table (14): Hospitals in Hebron Governorate by Location, Supervising Authority and Number of Beds, 2007**

GENERAL HOSPITALS			
Hospital Name	Location	Supervising Authority	No. of Beds
Al Khaleil (Alia)	Hebron City	MoH	216
Al Ahli	Hebron City	NGO	138
Red Crescent (Al Mohtaseb)	Hebron City	NGO	25
Al-Meizan	Hebron City	Private	25
Abu Al Hassan Al Kassem	Yatta City	MoH	21
MATERNITY HOSPITALS			
Naser	Yatta City	Private	16
Shaherah	Halhul Town	Private	10
Al-Etimad	Yatta City	Private	10
Bani -Na'em	Bani Naim Town	Private	10
Hamdan	Hebron City	Private	10

*(MoH-PHIC, Health Status in Palestine 2007, Sept 2008)*

As for the medical staff in the Hebron Governorate, data is only available for the governmental sector. Tables (15) and (16) show the numbers of health care staff, in 2007, in the 2 MoH Hospitals (Hebron city and Yatta city) and in the 124 Public Health Care Centers across the governorate.

**Table (15): Number of Health Care Staff in Hebron Governorate's MoH Hospitals, 2007**

Hospital	General Physicians	Specialist Physicians	Dentist	Pharmacists	Nurses	Mid wives	Health Workers	Para medical	Administration	Total
Al Khaleil (Alia)	42	29	0	5	172	13	0	40	97	398
Abu Al Hassan Al Kassem	18	7	0	2	36	2	0	14	37	116

(MoH-PHIC, Health Status in Palestine 2007, Sept 2008)

**Table (16): Number of Health Care Staff in Hebron Governorate's Public Health Care Centers, 2007**

General Physicians	Specialist Physicians	Dentist	Pharmacists	Nurses	Midwives	Health Workers	Paramedical	Administration	Total
44	7	6	9	111	6	82	41	85	391

(MoH-PHIC, Health Status in Palestine 2007, Sept 2008)

Statistics in 2007 showed that the Infant Mortality Rate (IMR) in the Hebron Governorate has declined to 12.9% as it reached 15.5% in 2007. The average IMR in the West Bank has reached 13.2% in 2008. The Hebron Governorate ranks third after Jenin and Nablus Governorates in terms of infant mortality.

**Table (17): Infant Mortality Rate in Hebron Governorate in 2007**

Live Births	Infant Deaths					Infant Mortality Rate
	Male	%	Female	%	Total	
16,613	119	16.0	96	12.9	215	12.9

(MoH-PHIC, Health Status in Palestine 2007, Sept 2008)

The final results of Population, Housing and Establishment Census of 2007 showed that the number of persons in the Hebron Governorate who have at least one disability was 24,329, which forms 4.3% of the governorate population. See table (18) for number of people with special needs and type of difficulty.

**Table (18): Number of People with Special Needs in Hebron Governorate by type of difficulty, 2007**

Type of Difficulty					
Communication	Cognition	Moving	Hearing	Seeing	Total
3,762	3,641	8,472	6,359	12,913	24,329

(PCBS, Population, Housing and Establishment Census-2007 Final Results, 2008)

## 2.6. Poverty and Food Insecurity:

The Palestinian agricultural sector plays an essential role in the economy and food security of Palestine and in the livelihood of its people. However, for a variety of historical, climatic and political reasons, most of the rural areas remain underdeveloped and efforts to improve farmers' conditions have not been sufficient. The segregation wall and Israeli military checkpoints have prevented farmers from accessing and working in their fields and marketing their produce. Most of the rural Palestinian population in the subsistence or traditional farming sector suffers from misery, unemployment, insufficient food and poverty.

On the other hand, farmers living in the marginalized areas in Hebron Governorates are mostly affected by the present situation of food insecurity. Poor and under empowered farmers are centered in the southern areas of the West Bank, having low productivity and access to limited diversity of crops and varieties due to drought, limited water resources and low soil fertility.

The current geo-political restrictions, significant increase in food prices, shrinking incomes and high unemployment rates have jeopardized the household economy and led to heavy indebtedness and changes in eating habits. Previously self-reliant families are progressively falling into the poverty trap and are unable to escape from their situation in the absence of job opportunities. Poverty and deep poverty in 2007 stood at 28.8% and 86.8% in WB and GS respectively. (OCHA, 2006)

Furthermore, the PCBS census in the year 2007 showed that Hebron Governorate has the largest average family size compared with other West Bank Governorates with 6.1 persons per household while the average of the West Bank was 5.5 persons per household. These larger families increase food consumption and household expenses. Up to 36% of the Palestinians in the Southern West Bank (Bethlehem and Hebron Governorates) are suffering from poverty and hardship. Of these 36%, most live in rural areas where low productivity and limited access to a wide variety of crops exists.

On the other hand the West Bank is still exposed to the occupation practices through confiscating of new lands (especially agricultural lands), building new housing units in the Israeli settlements inside the West Bank, reducing number of Palestinian workers in Israel, increasing the checkpoints inside the West bank and arresting more Palestinian people which increase the number of families those are left without a source of income.

Furthermore, Israel continued the construction of separation wall, continued to confiscate land, continued to demolish houses and other colonization policies, all of which continued to dismantle Palestinian communities and exacerbate the growth of an already-high unemployment rate. In the year 2008, the unemployment rate reached 25.9% of total working force in Hebron Governorate compared with 10% in the year 1999. Currently Hebron Governorate has the highest unemployment percentage compared with other West bank Governorates. (*PCBS, Labor force-Annual reports, 1997-2008*)

Due to these strict measures and unstabilized economic conditions as well as natural crisis such as drought and limited water resources the economical status of the Hebron Governorate is suffering from sharp deterioration. The WFP Food Security survey for the OPT in the year 2008 estimated that 32% households are food insecure and another 12.1% are vulnerable of becoming food insecure in the Hebron Governorate compare with 21.5% and 10.1% for the West Bank, respectively. This status is a direct result for imposing these poor families to decrease their intake of food items in terms of quality and quantities, along with the impoverishment process that started from 2000.

The climate of the Hebron Governorate ranges from arid to semi-arid with an increase in aridity towards south and east parts. The mean annual rainfall in Hebron Governorate is 473.4 mm/year. The year 2007/08 witnessed lower rainfall than usual and it was drought year as only 321.4 mm of rainfall was received which formed 67.9% of the average annual rainfall. This drought conditions create additional obstacles on the level of family food security and their income as most of the agriculture production in Hebron is subsistence agriculture. Furthermore, most of the people who had lost their work in Israel began farming their lands as to produce food for their families and generate income. It is worth mentioning that 22.6% of the formal employees of Hebron Governorate in the year 2008 were employed in agricultural sector compared with 11.0% in the year 2000.

Additionally, the Hebron Governorate is facing water scarcity especially during summer and the people found themselves enforced to purchase water through water tanks which costs them 20-25 Nis per cubic meter of water compared with 4 Nis from the water public network. Purchasing water through water tanks increases the vulnerability of the poor families and exposing them to bad health conditions. Consequently, Hebron Governorate ranked first in facing real water deficit in its allocated water budget among all the West Bank Governorates with 13.31 Million cubic meters in the year 2007. (*PWA, 2007*)

All of these factors are limiting the wealth and livelihood of the people and deepening the poverty of marginalized people as 30.4% of the Hebron people are classified as poorest compared with 19.5% of the West Bank people. Thus Hebron Governorate is considered as one of the most vulnerable governorates in the West Bank.

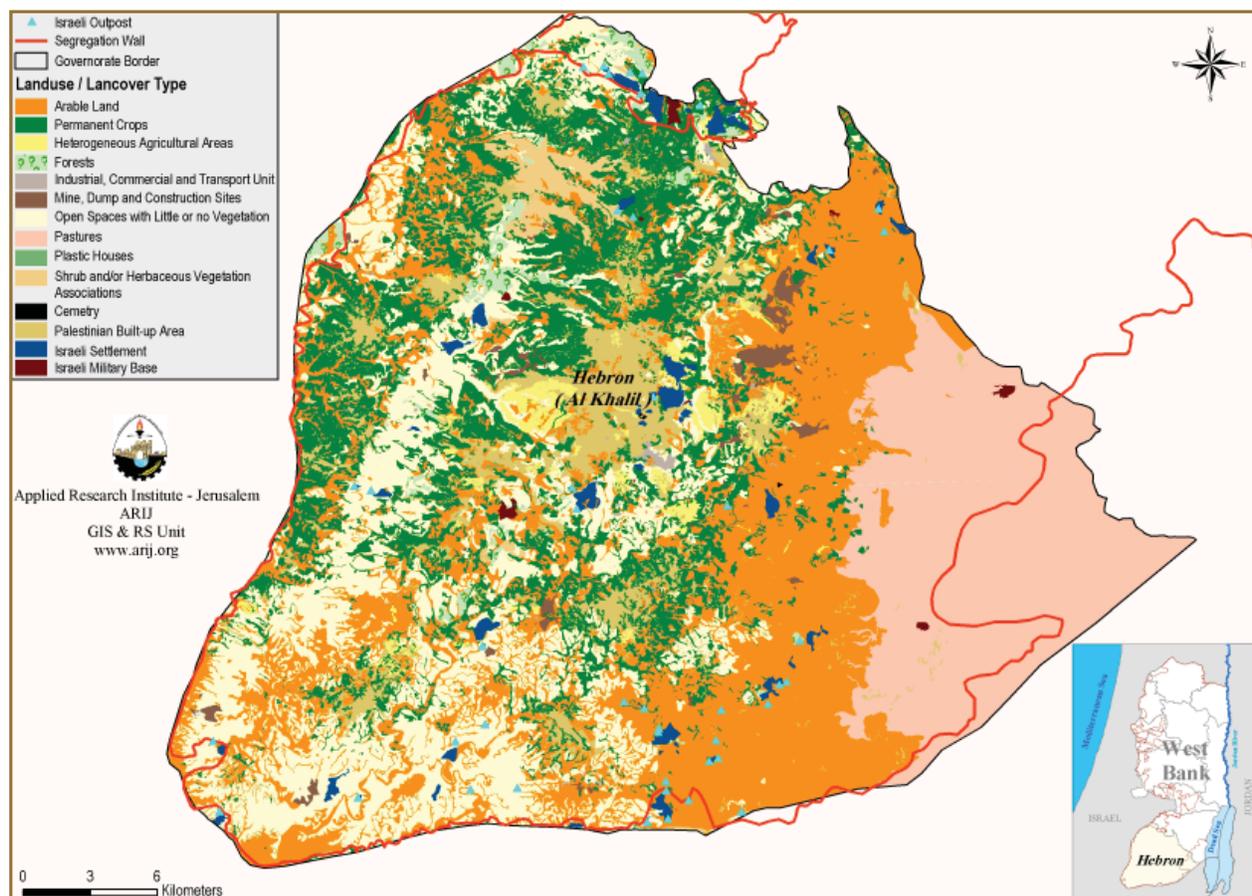
**PART THREE**  
**Agricultural & Environmental Status**  
**in the Hebron Governorate**

### 3.1. Land Use/ Land Cover

The Palestinian agricultural sector serves a population of about 3.8 million Palestinians, acting both as an economic base and as the main source of food to the Palestinians. During the past eight years, the agricultural sector in the Occupied Palestinian Territories has proved itself to be the most appropriate sector for dealing with emergencies erupting as a result of the extreme Israeli measures that have been carried out against the Palestinian People during the Second Palestinian Intifada in 2001.

The Hebron Governorate is the largest governorate in the West Bank in terms of area and population, and it is considered the second largest agricultural area after the Jenin Governorate. 21.7% of the labor force in Hebron Governorate works in agriculture. Based on the GIS analysis, the total Area of the Hebron Governorate is estimated to be 1,067,539 dunums, with nearly 530,632 dunums of agricultural land; of which are 195,320 dunums of permanent crops, 16,584 dunums of mixed agriculture, and 749 dunums of protected agriculture and 317,979 dunums of arable lands, where part of it used to be cultivated with seasonal crops. (See table 19 and map 5) (ARIJ GIS Unit, 2008)

**Map (5): Land use / Land cover in Hebron Governorate and Segregation Wall Route, 2008**



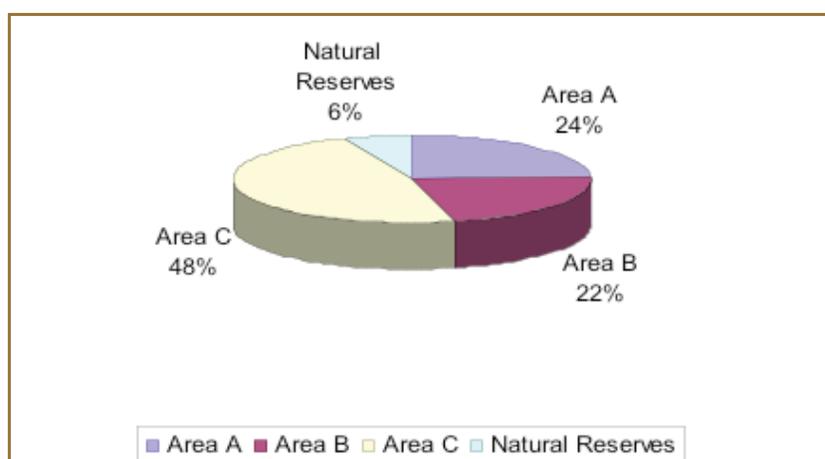
**Table (19): Land Use/ Land Cover in Hebron Governorate, 2006**

Land use / Land cover Type	Area in Dunum
Arable land	317,980
Forests	14,253
Heterogeneous agricultural areas	16,584
Industrial, commercial and transport unit	2,519
Mine, dump and construction sites	10,237
Open spaces with little or no vegetation	226,371
Pastures	169,924
Permanent crops	195,320
Plastic Houses	750
Shrub and/or herbaceous vegetation associations	14,815
Wall zone	149
Cemetery	106
Palestinian Built-up Area	83,224
Israeli settlements	13,466
Israeli Military Base	1,841
<b>Total Area</b>	<b>1,067,539</b>
<i>(ARIJ GIS Unit, 2006)</i>	
<i>* 1 km<sup>2</sup>= 1,000 dunums</i>	

Nonetheless, due to Israeli restrictions, less than 50% of the land in the Hebron Governorate is open to the Palestinian farmers for utilization. (See figure 1, and see map 7 in section 4.1.)

The Israeli segregation wall passes through the western and southern parts of the Hebron Governorate; a 160 km long wall encloses an area of about 104,255 dunums of the Hebron Governorate land, of which 80,954 are agricultural. (*ARIJ GIS Unite, 2008*)

**Figure (1): Percentage of Land in the Hebron Governorate According to the Geopolitical Classification of Oslo II**



## 3.2. Agricultural Activities

The type of agriculture practiced varies with region, but in general it can be divided into two groups. There is plant production, both rain fed and irrigated, and livestock production.

It is worth noting that the Hebron Governorate constitutes 15.48 % of the value of agricultural production in the Palestinian Territories, of which 5.71% is plant production and 9.77 % is livestock production. (PCBS, *Agricultural Statistics, December 2008*)

### 3.2.1. Plant Production

The total cultivated area in Palestine is usually categorized into 'Fruit Trees', 'Vegetables', and 'Field Crops and Forages'. The major area of plant production is rain-fed; however, irrigation is used in some parts.

According to the PCBS, the total area of plant production in the Hebron Governorate in the agricultural year 2006/2007 reached 338,400 dunums with total plant production of 92,757 tons and a total value of US \$63,648,000. Compared to the year 1997/1998 (before ten years), we notice an increase of approximately 8.1% in the total planted area and a 29.7% increase in total production.

Furthermore, Rain-fed agriculture is dominated in the Hebron Governorate and it formed 97% of the cultivated area in the year 2006/2007, with a total production reaching to 60,007 tons, which is approximately 65% of the total agricultural production. However, although the irrigated area formed only 3%, its production was approximately 32.749 tons, which constituted 35% from the total production.

Thus, the agriculture in the Hebron Governorate is mainly dependent on rainfall and is vulnerable to any limited annual precipitation or bad distribution of rainfall. To sustain this viable sector, coping plans and strategies should be developed to mitigate the impact of low precipitation and bad distribution of rainfall, which became very noticeable during the last couple of years.

### Fruit Trees Production

During the 2006/2007 season, the total cultivated area of fruit trees in Hebron Governorate reached 183,849 dunums, of which 12.5% were un-bearing. Only 3 % of the cultivated area with fruit trees in the Hebron Governorate was irrigated, whereas 97% of the total cultivated fruit trees area was rain-fed.

The total production of the fruit trees reached 57,483 tons with a total value of US \$43,789,000. Olive production constitutes most of the fruit production, making up to 54% of fruit trees area in the Hebron Governorate, followed by grapes with 26 %. Compared to the year 1997/1998, we notice an increase of approximately 26.4% in the total area planted with fruit trees and a 20.3% increase in total production, and approximately 68.88% increase in the total production value.

As shown in table (20), olive trees, plum trees and grape vines are the highest cultivated fruit trees in the Hebron Governorate. Most fruit trees are rain-fed, except for nectarines, lemons, peaches and certain types of grapes.

**Table (20): Area, Yield and Production of Fruit Trees in the Hebron Governorate by Crop and Type, 2006/2007**

Crop	Production	Total Area	Un-bearing		Bearing			
			Irrigated Area	Rain-fed Area	Irrigated Area		Rain-fed Area	
					Yield	Area	Yield	Area
Olive	6,352	99,233	-	8,491	-	-	70	90,742
Grape	39,949	47,559	683	5,572	3,860	3,312	715	37,992
Plum	5,048	15,173	-	1,586	600	265	367	13,322
Almond (soft)	616	4,924	-	1,298	260	31	169	3,595
Almond (hard)	543	4,696	-	1,706	320	10	181	2,980
Fig	1,384	3,199	-	432	-	-	500	2,767
Apricot	950	2,151	-	900	1,300	123	700	1,128
Peach	343	1,814	-	578	750	100	236	1,136
Aloe	958	1,122	-	164	-	-	1,000	958
Apple	120	666	-	366	1,000	11	377	289
Pomegranate	270	611	285	-	828	326	-	-
Lemon	213	503	-	187	-	-	675	316
Sumak	59	397	-	198	500	19	276	180
Cherry	166	367	-	107	1,000	24	600	236
Walnut	138	364	16	124	750	20	603	204
Pear	212	342	-	130	1,013	23	1,000	189
Akadenia	140	317	-	100	-	-	647	217
Quince	20	402	-	95	-	-	65	307
Nectarine	2	9	2	-	-	-	300	7
<b>Total</b>	57,483	183,849	986	22,034		4,264		156,565

• Area: Dunum, Yield: kg/dunum, Production: metric tons  
 • (PCBS, Agricultural Statistics, December 2008)

## Vegetables Production

The results of the agricultural year 2006/2007 indicated that about 13,498 dunums of land were used for vegetable production in the Hebron Governorate. 65.2% of the vegetable area was rain-fed while the rest was irrigated. There are also around 539 dunums of greenhouses in the governorate. The total production of vegetables reached 21,798 tons with a total value of US \$14,419,000.

Compared to the year 1997/1998, there was a decrease of approximately 3.4% in the total area planted with vegetables, an increase of 456% in the total area of greenhouses and a 140% increase in total production.

Table (21) shows the vegetable production in the Hebron Governorate. Cucumber, tomato and cauliflower are the main crops of vegetables produced, comprising 66% of the total vegetables area in the Hebron Governorate.

**Table (21): Area, Yield and Production of Vegetables in the Hebron Governorate by Crop and Type, 2006/2007**

Crop	Production	Total Area	Greenhouses		Irrigated		Rain-fed	
			Yield	Area	Yield	Area	Yield	Area
Squash	2,032	2,876	-	-	2,858	388	371	2,488
Tomato	4,792	2,344	20,182	145	4,162	335	253	1,864
Snake Cucumber	557	2,174	-	-	-	-	256	2,174
Cauliflower	4,017	1,831	-	-	3,111	1,171	567	660
Okra	77	621	-	-	800	5	118	616
Cucumber	5,582	518	11,789	464	2,068	54	-	-
Broad bean (green)	100	422	-	-	451	120	152	302
Spinach	1,470	420	-	-	3,501	420	-	-
White Cabbage	381	332	-	-	1,468	232	400	100
Gourd	123	274	-	-	-	-	450	274
Turnip	733	253	-	-	2,896	253	-	-
Parsley	571	237	-	-	2,411	237	-	-
Cowpea	246	226	-	-	1,089	226	-	-
Radish	386	204	3,691	54	1,247	150	-	-
Kidney bean (green)	29	196	-	-	-	-	150	196
Onion (green)	132	193	-	-	686	193	-	-
Lettuce	246	113	-	-	2,176	113	-	-
Eggplant	69	86	-	-	-	-	800	86
Hot Pepper	137	68	-	-	2,018	68	-	-
Chick-peas (green)	63	50	-	-	1,269	50	-	-
Watermelon	8	20	-	-	-	-	400	20
Paprika	7	17	-	-	-	-	400	17
Pumpkin	22	12	3,000	1	1,760	11	-	-
Red Beat	13	8	-	-	1,610	8	-	-
Red Cabbage	5	3	-	-	1,800	3	-	-
<b>Total</b>	<b>21,798</b>	<b>13,498</b>		<b>664</b>		<b>4,037</b>		<b>8,797</b>

• Area: Dunum, Yield: kg/dunum, Production: metric tons  
 • (PCBS, Agricultural Statistics, December 2008)

## Field Crops and Forages Production

In 2007, about 141,053 dunums of land in the Hebron Governorate were used for rain-fed field crop and forages production, as only 71 dunums were irrigated. The total production of field crops and forages reached 13,476 tons with a total value of US \$5,440,000.

Compared to the year 1997/1998, there was a decrease of approximately 8.7% in the total area planted with field crops and forages and a decrease of approximately 8.1% in total production, respectively.

Barley and wheat production comprised 79.1% of the total field crops and forages area. (See table 22).

**Table (22): Area, Yield and Production of Field Crops and Forages in the Hebron Governorate by Crop and Type, 2006/2007**

Crop	Production	Total Area	Irrigated		Rain-fed	
			Yield	Area	Yield	Area
Barley	7,509	<b>71,514</b>	-	-	105	71,514
Wheat	3,157	<b>39,462</b>	-	-	80	39,462
Lentil	938	<b>11,301</b>	-	-	83	11,301
Vetch	511	<b>9,821</b>	-	-	52	9,821
Stern	471	<b>3,922</b>	-	-	120	3,922
Chick-peas	171	<b>1,740</b>	-	-	98	1,740
Sorghum	63	<b>1,038</b>	-	-	61	1,038
Dry Onion	37	<b>760</b>	-	-	49	760
Local Tobacco	349	<b>673</b>	-	-	518	673
Broad Bean	79	<b>449</b>	-	-	177	449
Meramieh	75	<b>88</b>	2,000	27	350	61
Thyme	78	<b>87</b>	2,000	32	250	55
Dry Garlic	15	<b>65</b>	-	-	232	65
Broom Corn	7	<b>57</b>	-	-	116	57
Sunflower	5	<b>37</b>	-	-	130	37
Sesame	1	<b>22</b>	-	-	40	22
Mint	10	<b>12</b>	800	12	-	-
Chamomile	0	<b>3</b>	-	-	120	3
Other Dry Legumes	0	<b>2</b>	-	-	120	2
<b>Total</b>	13,476	<b>141,053</b>		71		140,982

• Area: Dunum, Yield: kg/dunum, Production: metric tons  
 • (PCBS, Agricultural Statistics, December 2008)

### 3.2.2. Livestock Production

The total production of livestock in the Hebron Governorate during the agricultural year 2006/2007 reached 9,881 tons of red meat, 45,187 tons of white meat, 55,902 tons of milk, 85 million eggs, and 68 tons of honey.

The value of livestock production (meat, dairy, eggs) in the Hebron Governorate during the agricultural year 2006/2007 registered approximately US \$108,825,000. The contributions of these sectors from the total livestock production value of the Hebron Governorate were as follows: 57.1% meat, 35.5% dairy, 5.3% eggs.

Compared to the year 1997/1998, there was an increase of approximately 65.6%, 120%, 136% and 119.4% in the total production of meat (white and red), milk, eggs and honey, respectively, however, we notice a decrease of approximately 12.2% in total production of white meat.

### Cattle Production

The total number of cattle in the Hebron Governorate during the agricultural year 2006/2007 was 10,795 heads, with a total value of production (meat & milk) approximately US \$20,921,000. Compared to 1997/1998, there was an increase of approximately 193.7% in the total number of cattle.

Table (23) compares the number and type of cattle farmed in the Hebron Governorate and in the Palestinian Territories in total.

**Table (23): Number of Cattle by Strain, Sex and Age in the Hebron Governorate compared to the Total in the Palestinian Territories, 2006/2007**

Region	Local Cattle				Friesian Cattle				Grand Total
	Cows	Calves	Bulls	Total	Cows	Calves	Bulls	Total	
<b>Hebron</b>	-	-	-	-	5,875	4,679	241	10,795	10,795
<b>Palestinian Territories</b>	2,399	1,332	141	3,872	16,336	13,416	631	30,383	34,255

(PCBS, Agricultural Statistics, December 2008)

### Sheep and Goats Production

The total number of sheep in the Hebron Governorate during the agricultural year 2006/2007 reached to 225,464 head, whereas the number of goats reached to 92,944 heads. The total number of small ruminants in Hebron Governorate forms 30.3% of the total number of small ruminants in the Palestinian Territories. The total value of the production of sheep and goats combined (meat and milk) reached in 2007 approximately US \$59,777,000.

Compared to 1997/1998, there was an increase of approximately 36.7% and 21.1% in the total number of sheep and goats, respectively.

See table (24) for types and numbers of goats and sheep in the Hebron Governorate and in the Palestinian Territories.

**Table (24): Number of Sheep and Goats in the Hebron Governorate compared to the Total in the Palestinian Territories, 2006/2007**

Region	Goats			Sheep		
	Local	Other	Total	Local	Other	Total
<b>Hebron</b>	92,451	493	92,944	179,918	45,546	225,464
<b>Palestinian Territories</b>	298,789	44,776	343,565	478,021	266,743	744,764

(PCBS, Agricultural Statistics, December 2008)

### Poultry Production

The total number of broilers in the Hebron Governorate during the agricultural year 2006/2007 was 7,255 thousand birds; constituting 27.3% of the total broiler production in the Palestinian Territory. There were 355,000 layer birds, with a total value of production (meat & eggs) at approximately US \$25,857,000.

Compared to the year 1997/1998, there were decreases of approximately 12.2% in the total number of broilers, while there was an increase of approximately 13.6% in the total number of layer birds.

Table (25) compares the total layer and broiler birds in the Hebron Governorate and in the Palestinian Territories in the agricultural year 2006/2007.

**Table (25): Number of Broilers and Layers in the Hebron Governorate compared to the Total in the Palestinian Territories, 2006/2007**

Governorate	Poultry numbers in thousands	
	Layers	Broilers
Hebron	355	7,255
Palestinian Territories	2,797	26,581

(PCBS, Agricultural Statistics, December 2008)

### Beehives Production

The total number of beehives in the Hebron Governorate in 2007 reached 6,847 including 6,827 modern beehives and 20 traditional beehives, with a total value of the production approximately US \$709,000. (See table 26)

Compared to 1997/1998, there was an increase of approximately 117.8% in the total number of Beehives.

**Table (26): Number of Beehives in the Hebron Governorate compared to the Total in the Palestinian Territories, 2006/2007**

Region	Beehives		
	Modern	Traditional	Total
Hebron	6,847	20	6,827
Palestinian Territories	65,948	3,128	62,820

(PCBS, Agricultural Statistics, December 2008)

### 3.3. Forestry

In 1946, the British Mandate of Palestine declared 14 locations in the Hebron Governorate as forested area, where approximately 3,969 dunums of mountainous and steep lands were planted with cypress and pine trees. In the early 1930s, nurseries were established to distribute forest seedlings to local governments and the general population as part of a national forestation scheme. During the Jordanian administration in 1951, a law was enforced to protect and develop all forests of the Hebron, Nablus, Tulkarem, Jenin, Jericho, and Ramallah Governorates. As of 1971, Israel prohibited all forestry activities and stopped the activities of forest nurseries in most governorates of the West Bank. The only nursery left functioning was Wadi Al-Quf Nursery in Hebron.

Since the establishment of the Palestinian National Authority (PNA), Wadi Al-Quf Nursery and Al-Arrub agricultural station in Hebron were rehabilitated to produce forestry seedlings. In addition, approximately 350 dunums of private forestlands and 115 dunums of governmental forestlands were replanted in Hebron. Currently, there are almost 14,949 dunums of forested areas in the Hebron Governorate, comprising 22 percent of the total forest area in the West Bank and playing a crucial role in landscape and green-coverage preservation and watershed protection in the Palestinian Territories.

There are three types of forests in Hebron Governorate: natural, planted, and designated forests, which constitute 79 percent, 9 percent, and 12 percent of the total forested area in Hebron, respectively. The dominant plant species and associations in Hebron forests are mainly deciduous and evergreen shrubs and trees, which include the pine tree: *Pinus halapensis*; the Italian cypress: *Cypress sempervirens*; the Palestine oak: *Quercus calliprinos*; the terebinth tree: *Pistacia Palaestina*; the mastic tree: *Pistacia lentiscus*; the carob tree: *Ceratonia siliqua*; the Palestine

buckthorn: *Rhamnus palaestinum*; the eastern strawberry tree: *Arbutus andrachne*; the azarole: *Crataegus azarolus*; the officinal storax: *Styrax officinalis*; the thorny burnet: *Sarcopoterium spinosum*; and herbs such as Spanish oregano: *Thymus capitatus*; germander: *Teucrium divaricatum*; *Rhus cornia*; *Varthemia*: *Varthemia iphionoides*, and others.

Hebron Governorate's forests are distributed all over the governorate and are characterized by their Mediterranean ecosystem. The climate tends to be semi-humid to semi-dry going from west to east in the governorate, which provides suitable environments for the growth of most plant species. Most of the Hebron forests are located on fertile soil types (Terra Rossa, Brown Rendzinas, and Pale Rendzinas) and in areas that enjoy favorable climatic conditions for agriculture. Hebron forests are also habitat to many wild animals including jackals, foxes, hyenas, hedgehogs, rats, mice, squirrels, snakes, geckos and lizards, and many birds and insects. There is a great and clear interrelationship among plant and animal life in the Hebron forest.

Most of Hebron's forested areas are governmental lands; however, only 6.6 percent of the forested areas are located in geopolitical Area A, where forests are under the control of the Palestinian Authority and fully managed by the Ministry of Agriculture (MOA); 35.4 percent of forested areas are located in geopolitical Area B, where the MOA has partial authority but no control over effective management actions; and 58 percent of forested areas are located in geopolitical Area C, where the forests are under Israeli control and the MOA has no management authority.

Since 1971, both types of natural and planted forests have been exposed to destruction perpetrated by both Israeli settlers and Palestinian inhabitants. Consequently, the natural forest area of the West Bank has diminished by 59 percent. Currently, 18 forested areas of the Hebron Governorate were confiscated by Israel and isolated behind the Segregation Wall - an area of approximately 4,763 dunums, including almost 33 percent of the total forested area in the Hebron Governorate and 20.7 percent of the total forested area in the Palestinian Territory, despite the fact that it was a well-known habitat for several endangered wild plant and animal species. It is also known that the Israeli government continuously neglects its role in managing the Palestinian Territory forests, especially the ones that are enclaved or slated to be enclaved by the Segregation Wall and thus will end up under Palestinian sovereignty.

The forestlands are misused by the local population, and some Palestinian built-up areas are expanding into the forested area. Several industrial areas are also located close to existing forests and have left no buffer zones. In addition, most of the industrial investors depend on forest resources to develop their businesses, mainly utilizing the trees as timber for wood manufacturing to produce furniture or to sell as raw material for other wood industries in the West Bank.

The cutting pressure affects not only large old trees such as pine and cypress, but also those that can be a good fuel source such as oak, mastic, and azarolus. Palestinians also deplete forested areas through over-grazing of sheep and goats, unmanaged recreation practices, waste disposal, fire, and overexploitation. These activities, combined with natural destructive elements such as wind, snow, soil erosion, aging, accidental fires, and pests and diseases have left dramatic scars on forests in Hebron. They have resulted in a vast reduction of the natural and human-made forested areas.

The situation of the forest has been exacerbated by the Israeli occupation. Furthermore, Palestinian inhabitants of nearby villages have used and abused the forest, preferring that they themselves, rather than the Israelis, benefit from the forest resources. The situation worsened especially after the second Intifada when unemployment and poverty increased. Many people use pine and cypress trees for timber and furniture, as pine wood costs between US\$ 130 and 160 per ton (not including transportation costs). It is worth noting that in several forests not under the jurisdiction of the MOA, weak management and lack of protection measures hinder reforestation activities.

In Palestine, as in any country that borders the Mediterranean Sea, forests have fused with the totality of socially inherited and transmitted behavior patterns, beliefs, and culture. They are just as important and, if managed well and preserved from all forms of destruction and threats, should continue to provide essential products, improve the quality of environmental services, and protect natural heritage through the ages.

### Photos of Wadi Al Quf Forest



### 3.4. Water Resources

Water shortage is a serious problem facing the Hebron Governorate, not only due to the arid and semi-arid climatic conditions and rainfall variability in the area, but also due to the Israeli strict control over the Palestinian water resources.

The Water Resources in the Hebron Governorate consist primarily of ground and surface water resources. The Hebron Governorate is located above the Eastern and Western Basins of the West Bank Mountain Aquifer System. It is worth mentioning that the Hebron Governorate is the most arid area in the West Bank and is highly populated particularly in the south and southwest, where many rural communities reside.

The main sources of drinking water in the Hebron Governorate are domestic wells and springs, agricultural wells and resources purchased from the Israeli company, Mekerot. The Mekerot Company controls part of the Hebron water resources from abstraction to distribution.

There are 3 groundwater wells in the Hebron Governorate owned by the Hebron Municipality which consist of Fawwar wells No.1 and No.2 and Al Safi well. There are 4 wells supervised directly by the West Bank Water Department, where Mekerot Company is responsible for the administration and maintenance, which include: As Samu', Herodion No 1, No 2 and No 3. It should be noted that there are 9 newly wells dug south of the West Bank in an attempt to solve the water crisis in the governorates of Bethlehem and Hebron. These wells are owned by the Palestinian Water Authority (PWA). (PWA, 2006) (See table 27).

Moreover, there are approximately 89 wells and 63 springs, in the Hebron Governorate which are freely used by the surrounding population without restrictions for small scale domestic and irrigation purposes.

**Table (27): Wells in the Hebron Governorate by Ownership and Amount Produced, 2006**

Well	Owned by	Production (MCM)
<b>Fawwar 1</b>	Hebron Municipality	0.752
<b>Fawwar 2</b>		
<b>Al Safi</b>		
<b>Herodion 1</b>	West Bank Water Department Wells	0.592
<b>Herodion 2</b>		2.501
<b>Herodion 3</b>		1.147
<b>As Samu'</b>		0.346
<b>9 PWA wells</b>	PWA	8.724
<i>(PWA, 2006)</i>		
<i>* MCM (million cubic meter)</i>		

The Hebron water supply network provides coverage for approximately 83% of the population. (*WaSH MP, 2006*) While the city of Hebron and the surrounding villages are well connected, the governorate is host to a large number of small rural communities, largely Bedouin, with no water service provision. Currently, 17% of the total population in the Hebron Governorate is not connected to the water network. (*WaSH MP, 2006*) These rely entirely on cisterns and water tankers for their domestic water uses.

Connection to the water network alone, however, does not automatically translate into a regular and constant water supply. Approximately 37% of the connected communities in the Hebron Governorate experience some degree of main valve closure (*Wash MP, 2005*), which in some cases is over 50% of the time.

The majority of communities experiencing valve closure are located in areas served by Mekerot; often located close to the Israeli settlements, where the supply of Palestinian communities is dependent on the needs and requirements of the settlers (who generally consume 5.3 times more water than the Palestinians).

This is particularly obvious by the fact that most of these communities are only served by Mekerot in the winter months (*Wash MP, 2006*), and rely on tanker water for the rest of the year.

The West Bank Water Department (WBWD) & Mekerot (The Israeli Water Company) supply water to 52 localities in the Hebron Governorate and Hebron Municipality supplies another 10 localities, while 88 localities in the governorate remain unconnected to any form of water network. (*PWA, 2005*)

## Water Supply and Demand

In 2007, a total of 16.8633 MCM of water was supplied to the Palestinian population in the Hebron Governorate. (*PWA, 2007*) Of this, approximately 60% was purchased from Mekerot and 40% was provided from the Municipal Wells.

Based on the World Health Organization (WHO) recommendations, each person should receive a minimum quantity of 100 liters of fresh water per day. In Hebron Governorate, the total deficit in domestic water supply for 2007 was 13.31 MCM. (*PWA 2007*) Thus, on average, domestic water supply covered only 55% of demand. This deficit is expected to worsen as the population grows. It should be noted that the average of water supply in Hebron Governorate does not exceed 84 liters per capita per day. (See table 28)

**Table (28): Supplied and Demanded Water Quantities in Hebron Governorate, 2007**

Population (1000)	Needed Quantities (MCM)	Available Quantities (MCM)	Deficit (MCM)	Supply Rate (l/c.d)
551.130	30.17	16.863	13.31	84
<i>(PWA, 2007)</i>				

## Water Quality

In terms of water quality the majority of communities in Hebron Governorate are suffering from water born diseases. As may be expected, the majority of users reporting bad water quality are located in un-served communities, mainly accessing water through tankers. Similarly, the served localities reporting bad water quality are concentrated in the localities next to the Green Line (1949 Armistice Line), where the water network consistently runs dry. Requiring additional water supply from tankers and water supply is intermittent, such as the cases of Yatta, Beit Awwa and Idha, all of which have a high incidence of water born disease.

### 3.5. Waste Water

The existing practices for managing domestic wastewater in the Hebron Governorate are limited to the collection of the generated wastewater by sewage networks and/or cesspits and final discharge into open areas. Wastewater collection in the Hebron Governorate is limited to major cities and the two refugee camps, where only 7 communities out of approximately 182 communities in the governorate are connected, either totally or partially, to sewage network (See table 29). The sewage network serves approximately 27% of the Hebron Governorate population, where the remaining population uses cesspits and open channels for waste water collection. (*WaSH MP, 2006*)

**Table (29): Percentage of Wastewater Network Coverage in the Communities Connected to the Network in the Hebron Governorate, 2006**

Community Name	Wastewater Network Coverage (%)
Al 'Arrub Camp	95%
Shuyukh al 'Arrub	95%
Al Fawwar Camp	100%
Hebron City	80%
Nuba	6%
Deir Samit	10%
Kharas	5%

### 3.6. Solid Waste

Solid waste disposal and management is an increasing problem which local authorities must address. Solid waste can be seen on road sides, backyards and in open space. The waste collected by municipal or village councils is deposited in open, uncontrolled dumps. Nearly 67% of the solid waste is collected in the Hebron Governorate and dumped in 17 open and uncontrolled dumping sites, while the remaining 33% of the solid waste is dumped and burned on road sides and vacant lands.

**PART FOUR**  
**Geo-Political Status**  
**in the Hebron Governorate**

The Hebron Governorate is the largest Governorate in the West Bank in terms of size and population. Its area before the 1948 Arab Israeli war was 2076 km<sup>2</sup> and when the 1949 Armistice line was drawn it lost about 51% of its area. (See map 6) Accordingly, the Hebron governorate's area is about 1067 km<sup>2</sup>, which is nearly 19% of the West Bank total area.

**Map (6): Palestinian Territories before and after the 1948 War**

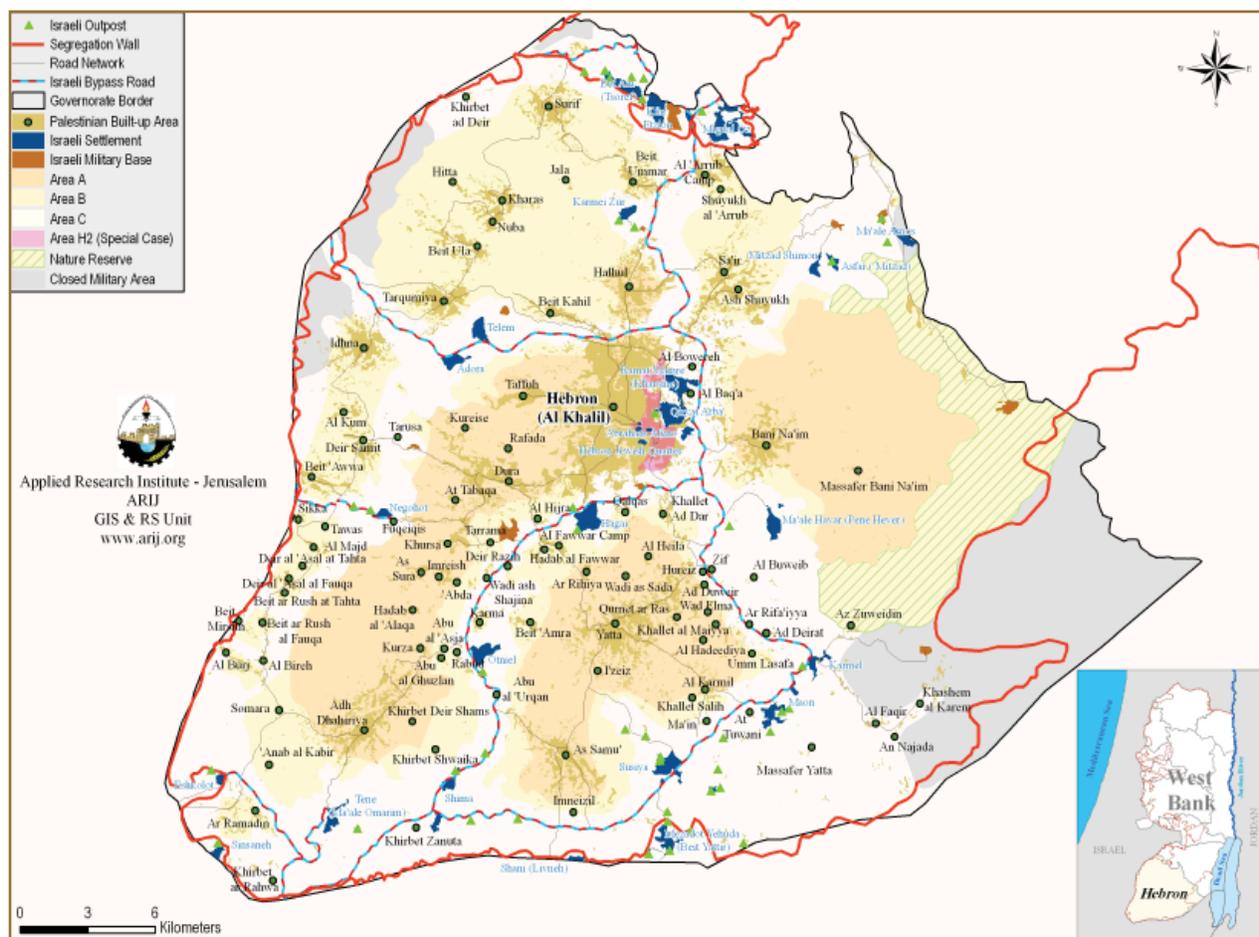


## 4.1. The Hebron Governorate under Oslo Accords

According to the Oslo Interim Agreement signed in September of 1995 between the Palestinian Liberation Organization (PLO) and Israel, the West Bank was divided into three areas; A, B, and C. This jagged distribution has scattered the Occupied Palestinian Territory and turned it into isolated cantons; physically separated from each other.

Under the signed agreement, the Hebron Governorate was fragmented to areas (A=24%), (B=22%) and (C=48%), in addition to 6% as a nature reserve area. Area A, which would consist of territory to be placed under direct Palestinian control; Area B, jointly-controlled territory, in which the Palestinians would exercise civil and police authority but Israel would retain security responsibility; and Area C, territory in which Israel would have exclusive control, it consisted mainly of sparsely or unpopulated areas, Israeli military installations and Jewish settlements. (See map 7)

**Map (7): Geopolitical classifications and Segregation Wall Route in Hebron Governorate**



## 4.2. Hebron City (H1/H2 Protocol)

In January of 1997, Israel and the Palestinian Liberation Organization (PLO) signed the Hebron protocol, which divided the city of Hebron into 2 parts: H1 and H2.

The area identified as H2 covers approximately 20% of the municipal boundary in the city of Hebron. It comprises the entire Old Market (Al Suq) and areas adjacent to the Israeli settlements, which are located near each other in the Casbah (the Old City): the Avraham Avinu neighborhood, Beit Romano, Beit Hadassah, and Tel Rumeida. (B'Tselem, 2003)

H2 area falls completely under the control of the Israeli army. It accommodates some 35,000 Palestinians facing more than 100 movement barriers, and more than 500 Israeli-Jewish settlers who are guarded by hundreds of Israeli soldiers. (*B'Tselem, 2003*)

H2 area is completely enclosed and heavily guarded with checkpoints, roadblocks and military barriers cutting roads leading to other parts of the city; the H1 area. People from around the city have restricted access to the city's old markets, including the vegetable market, gold market, yogurt market, leather market and others which have been under closure since the beginning of the second Intifada in 2000.

Restrictions on Palestinians' movement were imposed on all roads that run near settlements. Furthermore, Palestinians who live within the H2 area are required to register with the Israeli Army to access their homes.

### 4.3. Israeli Settlements and Outposts

In the Hebron Governorate, the Israeli settlements' program started as early as the Israeli occupation in 1967 and continued to progress in slow pace but the real surge in settlements' construction happened in the 1980's. These settlements are distributed along three nearly parallel lines, in addition to the existence of a 'belt of settlements' at the southern section of the Governorate.

Today, 28 Israeli settlements are built in the Hebron governorate; all of which have a total master plan area of 59.2 km<sup>2</sup> (5.5% of the total area of the Hebron Governorate). See table 30 for list of the Israeli settlements with related information on each. (See map 8)

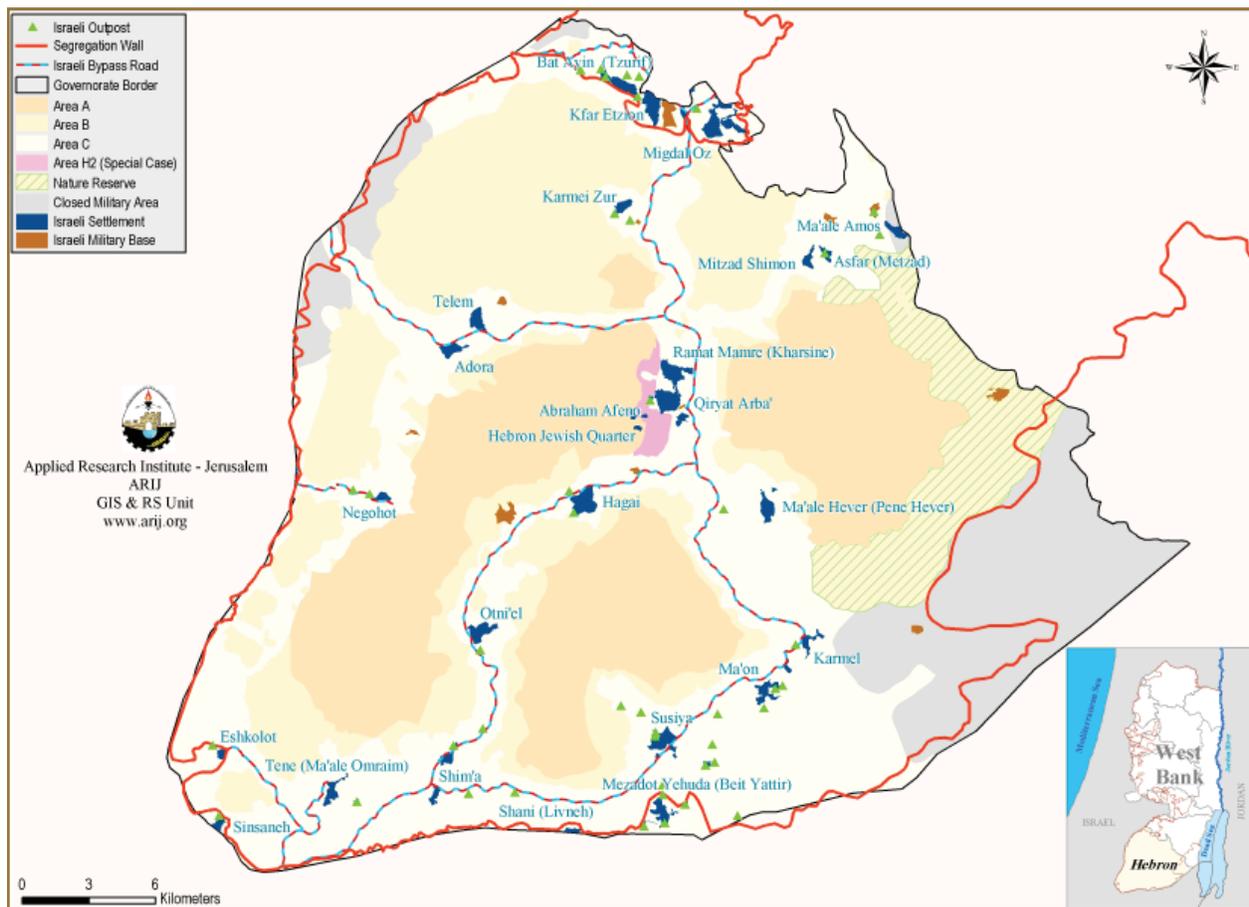
**Table (30): Israeli Settlements in Hebron Governorate, 2008**

No.	Settlement's Name	Population 2006	Date of Establishment
1	Asfar (Metzad)	269	1984
2	Eshkolot	235	1982
3	Hagai	471	1984
4	Mitzad Shimon	64	1991
5	Shani (Livneh)	364	1989
6	Tene (Ma'ale Omraim)	540	1982
7	Houses Occupied by Settlers	120	---
8	Beit Hadasa (Ad daboya)	129	1980
9	Abraham Afeno	171	1968
10	Hebron Jewish Quarter	1031	1967
11	Ma'ale Hever (Pene Hever)	391	1982
12	Migdal Oz	354	1977
13	Karmeil Zur	749	1984
14	Negohot	155	1982
15	Otni'el	764	1983
16	Qiryat Arba'	7089	1972
17	Ramat Mamre (Kharsine)		1983
18	Karmel	420	1981
19	Susiya	711	1983
20	Mezadot Yehuda (Beit Yattir)	441	1977
21	Sinsaneh	236	1999
22	Kfar Etzion	371	1967

23	<b>Ma'ale Amos</b>	365	1981
24	<b>Telem</b>	169	1981
25	<b>Adora</b>	226	1982
26	<b>Ma'on</b>	370	1980
27	<b>Bat Ayin (Tzurif)</b>	839	1989
28	<b>Shim'a</b>	364	1985
	<b>Total</b>	<b>17,408</b>	

ARIJ Database – 2008

**Map (8): Israeli Settlements, Outposts, and Bypass Roads in Hebron Governorate, 2008**



In 1996, the Israeli settlers instigated a new phenomenon which later became known as “outposts”. It is simply identified as a group of Israeli settlers taking control of Palestinian hilltops located in close proximity to an existing Israeli settlement (identified as “Mother settlement”) and setting-up few caravans for young Israeli settlers to reside in.

The consecutive Israeli governments did not officially sanction the outposts’ sites; but it certainly indulged them; providing them with military protection and infrastructure services, in addition to indirect financial support.

In the years between 1996 and 2005, the Israeli settlers in the Hebron Governorate established 44 locations that came to be known as Israeli settlement outposts. (See table 31 and map 8)

**Table (31) Israeli Outposts in Hebron Governorate, 2008**

No.	Outpost's Name	No. of Structures	Closest Mother Settlement
1	Giva't Rehavam	1	Hagi
2	Old Masuot Yitzhak	6	Bat Ayin
3	Hill 652	2	Bat Ayin
4	Karmi Tzur South	1	Karmeï Zur
5	Migdal Oz West	3	Migdal Oz
6	Hill 833	11	Ma'on
7	Avigail	19	Ma'on
8	Mitzpe Lachish	9	Negohot
9	Suseya North	2	Susiya
10	Beit Hagai West	4	Hagai
11	Alt 673	2	Bat Ayin
12	Qiryat Arba West	10	Jewish Quarter
13	Mor Farm	9	Tene (Ma'ale Omraim)
14	Tzur Shalem	23	Karmeï Zur
15	Karmel West	0	Karmeï Zur
16	Pnei Kedem	35	Asfar (Metzad)
17	Metzadot Yehuda	13	Mezadot Yehuda
18	Yair Farm (magen David)	15	Susiya
19	Susiya North West	10	Susiya
20	Susiya Old Synagogue	13	Susiya
21	Shima' North	16	Shim'a
22	Asa'el	10	Peza'el
23	Old Maon Farm	5	Ma'on
24	Maon East	1	Ma'on
25	West susiya	6	Susiya
26	Mirshalem	5	Negohot
27	Bat Ayin West	21	Bat Ayin
28	Antena Hill	1	Pene Hever (Ma'ale Hever)
29	Yatir South West	5	Mezadot Yehuda
30	North Mezadot Yehuda	1	Mezadot Yehuda
31	Mizpe Ishtamoa/Roadblock 850	6	Otni'el
32	East Mezdot Yehuda	1	Mezadot Yehuda
33	North Sinsaneh	3	Sinsaneh
34	West Eshkelot	10	Eshkolot
35	North Bat Ayin	2	Bat Ayin
36	Bat Ayin East	11	Bat Ayin
37	Nof Neshet/ Lucifer Farm	5	Mezadot Yehuda
38	Ibei Hanachal	24	Ma'ale Amos
39	Hill 26	4	Qiryat Arba'
40	Building in Shabam Kiryat Arba	5	Qiryat Arba'
41	Qiryat Arba South/Sde Kalev	3	Qiryat Arba'
42	Givat Hadege/ The Flag Hill	38	Susiya
43	Nort East to Tene Omarim	15	Tene (Ma'ale Omraim)
44	Otniel East	20	Otni'el

ARIJ Database – 2008

#### 4.4. Israeli Segregation Wall

The Israeli Segregation Wall in the Hebron Governorate has the total length of 160 km (excluding parts of the eastern wall route). The existing Wall route starts at Gush Etzion settlements' bloc and ends in Hazalin Bedouin area in the eastern slopes of the Hebron Governorate. About 93 km of the route of the Wall have been completed, some 16 km extending from the Gush Etzion settlements bloc until Al-Jaba'a village is under construction; while the remaining 51 km is in the planning phase. (See map 7)

The total land area devastated under the path of the Segregation Wall is estimated at 16 km<sup>2</sup> (1.5% of the total area of Hebron Governorate), while the total land area isolated behind the Wall is estimated to be 105 km<sup>2</sup> (9.8% of the total area of Hebron governorate). The over all area of land devastated or isolated behind the Segregation Wall is 121 km<sup>2</sup> (11.3% of the total area of Hebron Governorate).

#### 4.5. Israeli Checkpoints and Bypass Roads

Prior to the year 2000, there were no checkpoints of any kind in the Hebron Governorate. The obstructions started to build-up over the past eight years to reach a record of 308 (out of total 669 in the West Bank) different forms of obstructions in 2008. The following table (32) lists the number and various types of obstructions established by the Israeli army to restrict and confine the movement of 550,000+ Palestinian residents of Hebron Governorate.

**Table (32): Israeli Checkpoints in Hebron Governorate, 2008**

Type of Checkpoint	No. of Checkpoints
Checkpoint	12
Earth mound	127
Observation Tower	10
Road Block	29
Road Gate	29
Tunnel	15
Road Barrier	9
Partial Checkpoint	6
Terminals	2
<b>Total</b>	<b>239</b>
<b>H2 Area Checkpoints</b>	<b>69</b>
<b>Grand total</b>	<b>308</b>
<i>ARIJ Database – 2008</i>	

Over the past few years, the behavior of the Israeli soldiers stationed at these checkpoints has taken a turn beyond the usual hassle treatment to more violent and brutal acts. This is evident; as many Palestinians of different segments of the Palestinian society (students, teachers, patients, medical staff, employees and others are subjected everyday to various forms of Israeli soldiers' cruelty, which involved beating, humiliation (stripping of clothing and sitting on a dirt mud), being held for hours under the burning sun or in the cold weather before they are allowed to cross a certain checkpoint.

The fallouts of the Israeli soldiers' acts at checkpoints comes with tormenting affect on the Palestinian society; causing social ties cutoff, economic separation between governorates, rise in

the unemployment rate, and disruption to daily life activities and internal migration. In addition to that, medical services have deteriorated as medical staff, doctors and patients are continuously denied access through checkpoints, including medical emergencies; causing patients' death in many cases.

As for the by-pass roads, the term "bypass" was first introduced in Oslo I (The Declaration of Principles) in 1993; it was used to identify roads used by Israeli settlers to bypass Palestinian communities. The bypass roads network of 150 km in the Hebron Governorate divides it into six separate entities as illustrated in map (8).

The bypass roads system in the Hebron Governorate, as in all parts of the West Bank, has 150 meters on each side of the road identified as security buffer zone, which the Palestinians are not allowed to use. This restriction on land use along with area used to construct the bypass roads has cost the Palestinians in the Hebron Governorate to lose an additional 50 km<sup>2</sup> (about 4.7 % of the total area of the governorate).

#### 4.6. Land Confiscation and Trees Uprooting

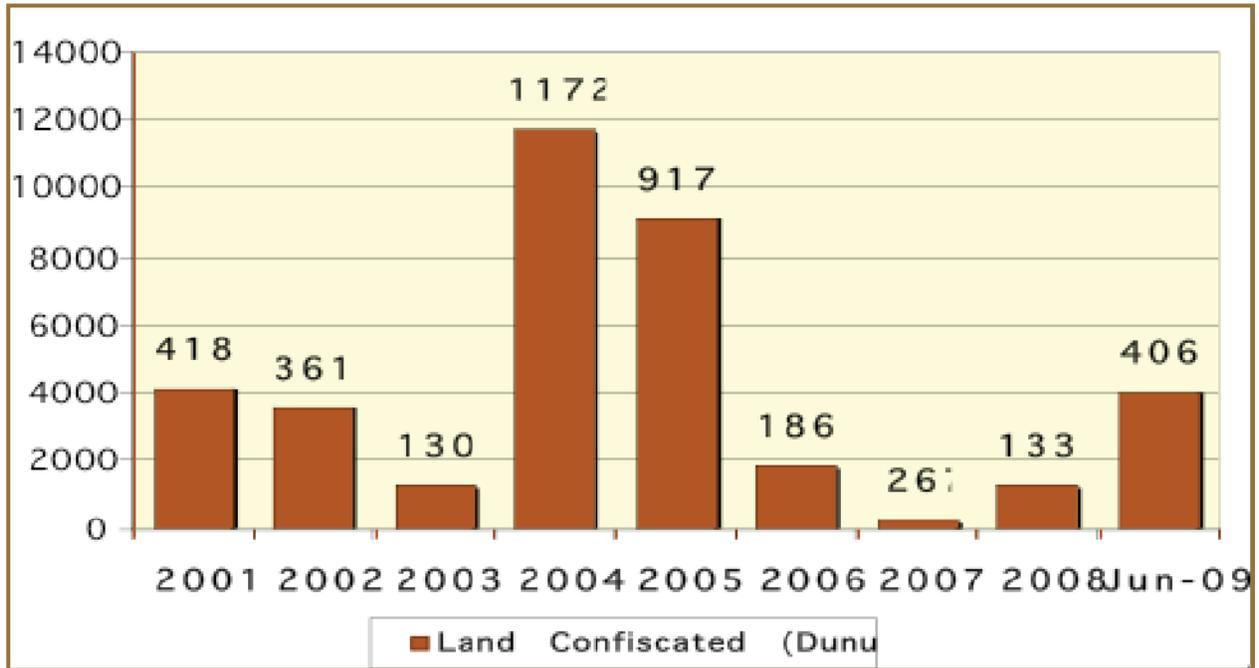
During the years of the second (Al-Aqsa) Intifada, the Israeli Occupation Authorities stepped up their aggressive occupation related activities against the Palestinian Agriculture in the Hebron Governorate. The Israeli Occupation targeted Palestinian owned land and fruit trees for the various Israeli purposes such as expanding of existing settlements, erecting new outposts, constructing and expanding bypass roads, and the construction of the Segregation wall. Table (33) indicates some of the Israeli violations in the Hebron Governorate. (See figure 2)

**Table (33): Land confiscated and trees uprooted in Hebron Governorate, 2001-2009**

Year	Land Confiscated (Dunums)	Uprooted Trees
2001	4,188	1,705
2002	3,618	105
2003	1,302	8,350
2004	11,729	7,245
2005	9,178	63,383
2006	1,860	13,543
2007	267	5,355
2008	1,339	1,360
Jun-09	4,069	660
Total	37,549	101,706

*ARIJ Monthly Repots Database – June 2009*

Figure (2): Confiscated Palestinian Land in the Hebron Governorate, 2001-2009



**PART FIVE**  
**General Needs Assessment  
in the Hebron Governorate**

## 5.1. Development Priorities and Needs in the Hebron Governorate

During ARIJ's field survey of the localities in the Hebron Governorate, a general needs assessment was conducted. The survey showed that 82% of the localities in the Hebron Governorate are in need of opening and paving of roads. 81% of the localities stated that they need new schools to cover the great number of students.

77% of the localities are in need of clinics and healthcare centers. In addition, the water networks in the Hebron Governorate need a great deal of attention, for 64% of the localities stated that they need new water networks.

As for the agricultural sector, 58% of the localities are in need of reclamation of their agricultural lands as well as building of agricultural cisterns and 55% of the localities are in need of field crops seeds.

**Table (34): Development Priorities and Needs in Hebron Governorate, 2007/2008**

Needs by Sector	Strongly Needed	Moderately Needed	Slightly Needed	Not Needed
<b>Infrastructural Needs (%)</b>				
Opening and Pavement of Roads	82	12	4	2
Construction of New Water Networks	64	2	4	30
Rehabilitation of Old Water Networks	17	12	11	60
Construction of Water Reservoirs	38	18	15	29
Extending the Water Network to cover New Built up Areas	29	14	8	49
Construction of Sewage Network	37	18	28	17
<b>Health Needs (%)</b>				
Building of New Clinics or Health Care Centre	77	7	6	10
Rehabilitation of Old Clinics or Health Care Centres	19	15	8	58
Purchasing of Medical Equipments and Tools	21	14	20	45
<b>Educational Needs (%)</b>				
Building of New Schools	81	10	5	4
Rehabilitation of Old Schools	23	20	18	39
Purchasing of New Equipments for Schools	38	17	25	20
<b>Agricultural Needs (%)</b>				
Rehabilitation of Agricultural lands	58	21	17	4
Building Cisterns	58	20	18	4
Construction of Barracks for Livestock	35	27	21	17
Veterinary Services	37	32	23	8
Seeds and Hay for Animals	44	29	24	3
Rehabilitation of Greenhouses	7	15	23	55
Field Crops Seeds	55	20	21	4
Plants and Agricultural Supplies	45	25	24	6

## 5.2. Participatory Rapid Appraisal (PRA)

The Participatory Rapid Appraisal is a qualitative research tool used to identify problems and formulate solutions. Its aim is to enable people to access an issue and make their own plans to address it.

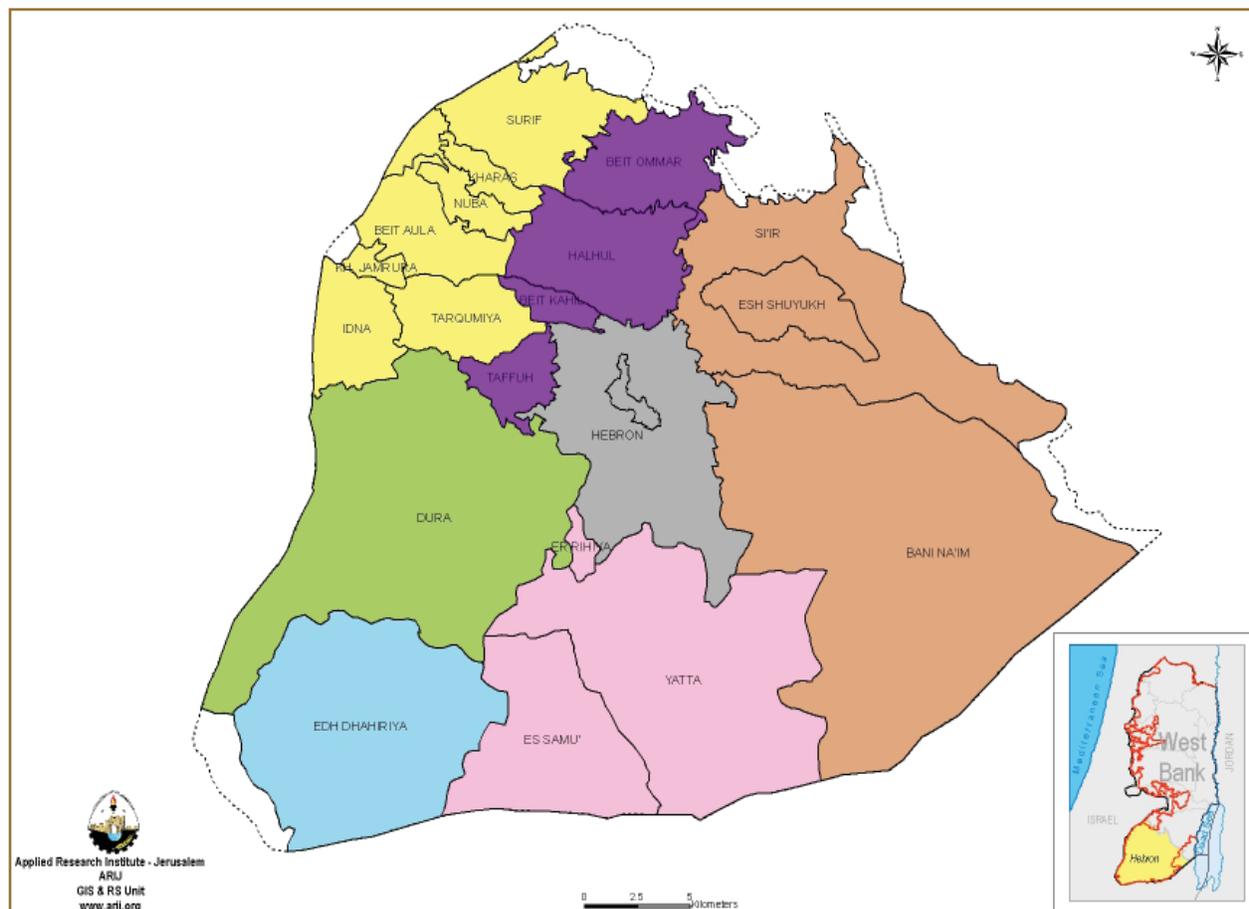
PRA emphasizes the empowerment of local people. It enables them to assume an active role in analyzing their problems and potentials in order to come up with solutions.

The PRA approach was chosen for this study because it provides guidelines for the fast appraisal of a certain situation in the field, the main advantages being:

- 1) It involves a relatively short time in the field.
- 2) It focuses on a few specific topics.
- 3) It involves the community and their institutions.

The project's action plan took the following course. First of all, the Hebron Governorate was divided into seven zones according to the local authority and the eco-agro nature of the land. See map (9):

**Map (9): Hebron Governorate according to local authority and eco-agro zones**



Second, six PRA meeting took place. Community leaders, farmers, women associations' representatives, and local co-operatives' representatives (agricultural, environmental, societal...etc.) were in attendance.

Another general workshop will take place, with the governmental bodies and the NGOs attending, to discuss the results and to come up with a vision and a comprehensive analysis for the Hebron Governorate as a whole entity.

During the PRA Workshops, each community presented its points of Strength, Weakness, Threats, Proposed Solutions, and Needs Priorities in relation to Agriculture, Water, and Environment. Upon these results nine development projects were proposed.

**PART SIX**  
**Proposed Development Projects**  
**(Agriculture & Environment)**  
**for the Hebron Governorate**

One objective of the “Village Profiles and Azahar Needs Assessment in the Hebron Governorate” project is to present development programs and activities to assist in developing the livelihood of the population in the Hebron Governorate.

Based on the survey and the Participatory Rapid Appraisal (PRA) workshops conducted in the Hebron Governorate, the following concept papers were developed addressing the major needs for livelihood development in the governorate.

### 6.1. Proposed Project for Rain Water Harvesting

<b>Project Title</b>	Rain Water Harvesting Systems for Domestic and Irrigation Uses
<b>Project Duration</b>	36 months
<b>Estimated Budget</b>	The total estimated project budget is US \$3,180,000. 25% of the cisterns construction cost will come as beneficiaries’ contribution.
<b>Stakeholders</b>	The project stakeholders will be the Ministry of Agriculture (MoA), the Ministry of Local Government (MoLG), UNDP, Agricultural Associations and the NGOs.
<b>Targeted Areas</b>	The project will target the north-eastern parts of Hebron Governorate, which include the following localities: Sa’ir, Bani Na’im, Ash Shuyukh, Dura, Beit Omar, Surif, Kharas, Beit Ola, Nuba, Tarqumiya, Idhna, Adh Dhahiriya, Beit ‘Awa and Yatta
<b>Beneficiaries</b>	The project will target 1000 families (approximately 7,000 individuals)
<b>Project Description</b>	<p>The annual rate of rainfall in these areas is between 200 and 500 mm. Water in the targeted areas is the main influential factor for agriculture.</p> <p>This project will help improve the rainwater harvesting system in the targeted areas through the construction of 1000 cisterns.</p> <p>This proposed project will complement the strategic plan of the MoA through increasing the productivity of the agricultural unit. The cisterns will act as a supplementary resource of water for the irrigation of fruit trees, and for livestock consumption in rangelands. This will help reduce the effects of the drought, and improve the livelihood of the targeted households.</p>

<b>Project Objectives</b>	To harvest rainwater for summer use (for irrigation and livestock consumption).
	To increase the productivity in warm and dry seasons.
	To increase the total agricultural area in the Hebron Governorate.
	To reduce the effects of drought.
	To reduce desertification in the area.
	To improve the livelihood of the targeted families.
<b>Project Activities</b>	Announcing the launch of the project and collecting applications for land reclamation from land owners in the targeted localities.
	Determining the targeted areas and beneficiaries according to the project selection criteria.
	Preparing and announcing of the implementation conditions and the bidding package.
	Constructing the 1000 cisterns and providing the beneficiaries with the necessary extension.
	Supervising, monitoring and evaluating the implementation process.
	Preparing the final reports and disseminating the results.
<b>Expected Results</b>	1000 cisterns for collecting and storing rainwater constructed in the targeted areas. Harvesting and storing of 70,000 cubic meters of rainwater annually.
	Increasing the productivity of fruit trees through supplementary irrigation.

## 6.2. Proposed Project for Rehabilitation of Agricultural Springs

<b>Project Title</b>	Rehabilitation of Agricultural Springs
<b>Project Duration</b>	12 months
<b>Estimated Budget</b>	The total budget is estimated at around US \$1,023,000.
<b>Stakeholders</b>	The project stakeholders will be the Ministry of Agriculture (MoA), the Palestinian Water Authority (PWA), local authorities, civil society and NGOs.
<b>Targeted Areas</b>	The project will target 5 localities north of Hebron Governorate, which are Halhul, Taffuh, Beit Ummar, Sa'ir and Shuyukh Al Arrub.

<b>Beneficiaries</b>	The project will benefit 400 families (approximately 2,200 individuals).
<b>Project Description</b>	<p>Springs are one of the important natural resources of water in Palestine. Now more than ever, these springs need preservation and rehabilitation to act as supplementary sources of water. The continuously decreasing supply of water into the Palestinian Territories has caused a serious deterioration in all life sectors, and mainly the agricultural sector.</p> <p>Moreover, most of the available springs are not efficiently utilized. For example, the absence of storage pools connected to the springs causes large quantities of spring water to be lost.</p> <p>This project will assist in the rehabilitation of 15 springs and 15 agricultural pools, and the construction of 10 agricultural pools with a total capacity of 250 m<sup>3</sup>. In addition, the project will help in the construction and rehabilitation of about 500 m of water channels, and the installation of a drip irrigation networks for 100 dunums of land in the targeted area.</p>
<b>Project Objectives</b>	<p>To effectively and efficiently utilize the available natural water resources.</p> <p>To increase the total irrigated area, thus increasing the productivity of the land; and eventually improving the livelihood of small farmers in the targeted area.</p> <p>To create job opportunities during and after the lifespan of the project.</p>
<b>Project Activities</b>	<p>Announcing the launch of the project to the targeted communities.</p> <p>Determining the targeted springs and beneficiaries according to the project selection criteria.</p> <p>Preparing and announcing of the implementation conditions and the bidding package.</p> <p>Rehabilitation of 15 springs in the targeted area.</p> <p>Rehabilitation of 15 agricultural pools.</p> <p>Construction of 10 agricultural pools with a capacity of 250 m<sup>3</sup>.</p> <p>Rehabilitation and construction of about 500m of water channels.</p>
<b>Expected Results</b>	<p>Providing a drip irrigation system for 100 dunums in the targeted.</p> <p>Supervising, monitoring and evaluating the implementation process.</p> <p>Preparing the final reports and disseminating the results.</p>

	<p>Spring water preserved and efficiently utilized.</p> <p>Optimizing the use of water through using drop irrigation systems.</p> <p>Total irrigated agricultural area increased.</p> <p>Job opportunities created.</p> <p>Beneficiaries' livelihoods improved.</p> <p>Agricultural production increased due to the increase in productivity of the agricultural unit.</p>
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### 6.3. Proposed Project for Land Reclamation

<b>Project Title</b>	Land Reclamation for Plant Production
<b>Project Duration</b>	36 month
<b>Estimated Budget</b>	The total area targeted is around 20,000 dunums, and the total cost of reclamation of one dunum is around US \$800. Therefore, the total budget is estimated at around US \$18,880,000. However, of the total budget 25% will come as beneficiaries' contribution.
<b>Stakeholders</b>	The project stakeholders will be the Ministry of Agriculture (MoA), the Ministry of Local Government (MoLG), UNDP, Agricultural Associations and the NGOs.
<b>Targeted Areas</b>	The project will target different localities Hebron Governorate, which include the following localities: Sa'ir, Bani Na'im, Ash Shuyukh, Dura, Beit Omar, Surif, Kharas, Tarqumiya, Beit 'Awa and Idhna
<b>Beneficiaries</b>	The project will target 5,500 families (approximately 38,500 individuals)
<b>Project Description</b>	<p>The project will assist in the reclamation and rehabilitation of approximately 20,000 dunums distributed in to the targeted areas. In addition, it will generate 336,000 working days for reclamation and 92,000 working days for the construction of 2,000 cisterns.</p> <p>The reclamation process will include the use of agricultural machines and bulldozers, terracing, building of walls or fencing, seedling and planting of fruit trees, in addition to constructing of water cistern (one cistern per 10 dunums).</p>

	<p>This proposed project will complement the strategic plan of the MoA through increasing the amount of cultivated areas, protecting the land from the Israeli procedure of land confiscation, creating job opportunities and improving the livelihood of the target families.</p>
<b>Project Objectives</b>	<p>To increase the total cultivated area in the Hebron Governorate.</p> <p>To create job opportunities for both genders, and thus decrease the high unemployment rate in the area.</p> <p>To improve the livelihood of the targeted families.</p> <p>To reduce the effects of desertification through land cultivation.</p> <p>To improve the rain water harvesting system through constructing cisterns that would act as water reservoirs for supplement irrigation.</p>
<b>Project Activities</b>	<p>Announcing the launch of the project and collecting applications for land reclamation from land owners in the targeted localities.</p> <p>Determining the targeted areas and beneficiaries according to the project selection criteria.</p> <p>Preparing and announcing of the implementation conditions and the bidding package.</p> <p>Implementing the reclamation and rehabilitation of the targeted areas and providing the beneficiaries with the adequate extension.</p> <p>Cultivation of the reclaimed and rehabilitate areas by the suitable crops.</p> <p>Supervising, monitoring and evaluating the implementation process.</p> <p>Preparing the final reports and disseminating the results.</p>
<b>Expected Results</b>	<p>Agricultural land reclaimed and rehabilitated for (20,000).</p> <p>Job opportunities created during and after the lifespan of the project.</p> <p>Poverty alleviated through income increase.</p> <p>Desertification reduced.</p> <p>Productivity of the agricultural unit increased.</p> <p>Self sufficiency induced.</p>

## 6.4. Proposed Project for Rehabilitation of Rangelands

<b>Project Title</b>	Rangelands Rehabilitation
<b>Project Duration</b>	48 months
<b>Estimated Budget</b>	<p>The total area targeted is around 1,000 dunums, and the total cost of rehabilitation of one dunum is around US \$400.</p> <p>Therefore, the total budget is estimated at around US \$400,000. However, of the total budget 25% (US \$100,000) will come as beneficiaries' contribution, and 75% (US \$300,000) will be incurred by the implementing agencies.</p>
<b>Stakeholders</b>	The project stakeholders will be the Ministry of Agriculture (MoA), UNDP, Agricultural Associations and NGOs.
<b>Targeted Areas</b>	The project will target the southern and northern parts of Hebron Governorate, which include the following localities: Adh Dhahiriya, As Samu' and Bani Na'im.
<b>Beneficiaries</b>	The project will directly benefit 100 families (approximately 730 individuals), as it will also indirectly benefit 200 families (approximately 1,460 individuals).
<b>Project Description</b>	<p>Adh Dhahiriya and As Samu' localities are located in the southern part of Hebron Governorate. The area is characterized by low precipitation of rainfall and drought. A high percentage of their population depends on livestock production. There are approximately 92,960 sheep, 23,270 goats and 931 cows in the targeted areas in total.</p> <p>The project will assist in the rehabilitation of 1,000 dunums of rangeland, including the construction of 10 km of terraces in the targeted sites, and the construction of 25 water cisterns (one cistern per 40 dunums).</p> <p>This proposed project will complement the strategic plan of the MoA through increasing the productivity of rangelands and founding new ones. In addition to increasing the productivity of livestock through planting pastoral shrubs and organizing grazing. Furthermore, the cisterns will act as a supplementary resource of water for irrigation and for livestock consumption during the hot and dry summer seasons.</p>
<b>Project Objectives</b>	<p>To found pastures of about 1,000 dunums planted with pastoral shrubs, seeds and wild plants.</p> <p>To collect and reserve rain water in order to use it for irrigation and for livestock consumption during the hot and dry summer seasons.</p>

	<p>To decrease desertification by cultivating the marginalized land.</p> <p>To improve the livelihood of the beneficiaries' families.</p> <p>To improve animal feed production and forage.</p> <p>To increase the production of red meat and milk products.</p> <p>To reduce the effects of drought.</p> <p>To control unorganized grazing, thus reduce desertification in the area.</p>
<p><b>Project Activities</b></p>	<p>Selecting the pastures locations.</p> <p>Forming a community based committee, which includes land owners, for the management of pastoral lands, and providing them with special capacity building training programs.</p> <p>Preparing the pastoral land by fencing the area and planting fence trees in order to control access to the area.</p> <p>Construction of roads to facilitate access to the pastoral land.</p> <p>Construction of 25 cisterns (75 m<sup>3</sup> each).</p> <p>Rehabilitating the land through: leveling the land, planting the suitable shrubs, fertilizing the land with organic fertilizers, planting fodder crops, collecting wild plants seeds such as legumes and replanting them in the pastoral land.</p> <p>Closing the rehabilitated pasture for 3 years.</p> <p>Providing the beneficiaries with the necessary extension and capacity building trainings.</p> <p>Monitoring and evaluating the implementation process.</p> <p>Preparing the final reports and disseminating the results.</p>
<p><b>Expected Results</b></p>	<p>1,000 dunums of marginal lands rehabilitated to become pastures and fodder crops producing.</p> <p>Grazing spaces provided for at least 800 heads of sheep and goats.</p> <p>25 cisterns constructed for supplementary water resources (187m<sup>3</sup> annually).</p> <p>Livestock production increased.</p> <p>Desertification reduced.</p> <p>Beneficiaries' income increased</p>

## 6.5. Proposed Project for Field Crops Production

<b>Project Title</b>	Improvement of the cultivation field crops and forages in the marginalized areas in the Hebron Governorate
<b>Project Duration</b>	24 months
<b>Estimated Budget</b>	The total area targeted is around 20,000 dunums, Therefore, the total budget is estimated at around US \$ 550,000.
<b>Stakeholders</b>	The project stakeholders will be the Ministry of Agriculture (MoA), Local Agricultural Associations and NGOs.
<b>Targeted Areas</b>	The project will target the marginalized area at Hebron Governorate including (Dura, Adh Dhahiriya, Yatta, As Samu', Bani Na'im, Surif, Beit Ula, Tarqumiya, Beit 'Awa and Idhna).
<b>Beneficiaries</b>	The project will directly benefit 4000 families (approximately 28000 individuals).
<b>Project Description</b>	<p>During the last few years, Hebron Governorate as well as other governorates in the West bank were suffering from the drought seasons which had a large negative impact on Palestinian farmers and herders. Up to 99.95 % of the area cultivated with field crops and fodder in Hebron Governorate is rain-fed, and as a direct result of drought, more than 60 % of the field crop seed and fodder production forages were lost. This is severely threatening the availability of seeds for the coming agricultural seasons, at a time when the Palestinian farmers are already suffering from high prices of agricultural inputs, especially the seeds of field crops and fodder to feed livestock.</p> <p>This project aims to purchase from local farmers field crops and fodder seeds and redistribute them to the most vulnerable drought-affected farmers. This will enable them to replant their fields next season and will increase plant and animal production. Ultimately the project will improve the people at Hebron Governorate access to affordable nutritious food.</p>
<b>Project Objectives</b>	<ul style="list-style-type: none"> <li>To improve the livelihood of the beneficiaries' families</li> <li>To increase the cultivated areas with field crops and forages</li> <li>To improve animal feed production and forage</li> <li>To improve the productivity of livestock (red meat and milk production)</li> <li>To decrease the cost of the plant production</li> <li>To reduce the effect of the drought</li> <li>To decrease the desertification of the marginalized areas</li> <li>Create jobs for the poorest families</li> </ul>

<b>Project Activities</b>	<p>Assist 4,000 of the most vulnerable drought-affected farmers to plant 20,000 dunums with suitable local varieties of wheat, barley, common vetch, better vetch and lentils</p> <p>Provide vital and timely extension services to beneficiary households, with the assistance of MoA</p> <p>Establish a participatory mechanism for project activities (seeds purchase, farmers selection, seeds distribution and monitoring) with 20 agricultural cooperatives from Hebron</p> <p>Improve cooperatives capacities in seed management and improve farmers' coordination and collective purchasing and selling systems, as well as creating a food security system; and</p> <p>Build farmers' knowledge in crop management, seed storage and Integrated Pest Management.</p>
<b>Expected Results</b>	<p>Increased income and production of beneficiary farmers;</p> <p>3,500 metric tones of wheat, barley, lentils and common and bitter vetch seeds produced;</p> <p>5,000 tons of green fodder and dry hay produced;</p> <p>4,000 men and women farmers linked with effective cooperatives;</p> <p>Capacity built of 20 agricultural cooperatives in seed and system management;</p> <p>Capacity built of 4,000 farmers in crop and pest management, seed storage and coordination</p>

## 6.6. Proposed Project for Livestock Production

<b>Project Title</b>	Improve the household self production of farm livestock through improving production conditions for small ruminants
<b>Project Duration</b>	24 months
<b>Estimated Budget</b>	The total estimated budget is US \$2,250,000 community contribution is US \$360,000.
<b>Stakeholders</b>	Ministry of Agriculture, local Agricultural Association and NGOs.
<b>Targeted Areas</b>	Bani Na'im, Sa'ir, Beit Amra-Yatta, Adh Dhahiriya, Dura, Halhul, Idhna, Tarqumiya, As Samu', Beit Ommar, Hitta, Beit Ula, Beit 'Awa and Surif.
<b>Beneficiaries</b>	1,000 poor livestock farmers who own 15-30 heads.

<p><b>Project Description</b></p>	<p>The small ruminant farms are distributed in most localities in Hebron governorate, where the ambient temperature is high especially during summer and rearing conditions are bad. Additionally, due to limited infrastructure on the household, the poor farmers find themselves insisting to take part of their small household to host their animal from the heat and cold resulting in reducing the quality of their life and increase the environmental problems inside the households.</p> <p>Additionally, such growing conditions usually reduce the amount of produced milk, growth rate, and fertility of the owned small ruminants. On the other hand, diseases and death rates increase which affect the income of these severely poor people.</p> <p>Therefore, assisting those poor households who own 15-30 heads to improve the growing conditions of their small flocks through rehabilitating the existing farms, sheds, watering and feeding systems would be extremely beneficial. This will also assist them to provide them with some additional feed to give to their animals to produce more milk and meat, which would improve their food security and increase their income through selling the excess products.</p>
<p><b>Project Objectives</b></p>	<ol style="list-style-type: none"> <li>1. Alleviating the poor living conditions of impoverished and vulnerable agricultural households in the marginalized areas of Hebron Governorate.</li> <li>2. Improving vulnerable households' capacity to produce food for both household consumption and market.</li> <li>3. Increasing capacities and skills of targeted households in agricultural practices, agricultural planning and decision-making, especially among the women farmers.</li> <li>4. Increasing productivity of small farms (meat and milk)</li> <li>5. Increasing the nutritional status for targeted household members.</li> </ol>
<p><b>Project Activities</b></p>	<ol style="list-style-type: none"> <li>1. Project announcement, establishing community committees and beneficiaries selection.</li> <li>2. Conduct project kickoff meetings with the Agricultural sector stakeholders including active NGO's in the Bethlehem and Hebron Governorates.</li> <li>3. Selection of targeted households and agreement signing.</li> <li>4. Preparing an implementation plan.</li> <li>5. Project implementation (activities)</li> <li>6. Reporting and dissemination of information.</li> <li>7. Monitoring and Evaluation</li> </ol>
<p><b>Expected Results</b></p>	<ol style="list-style-type: none"> <li>1. Up to 1000 livestock sheds, with an average area of 30 m<sup>2</sup> each will be rehabilitated.</li> </ol>

	<p>2. Up to 30,000 m<sup>2</sup> of livestock sheds will be rehabilitated with a total capacity of 30,000 heads. The sheds play an important role in protection of the livestock from sun, rain and cold which will result in increasing the productivity of the small ruminants.</p> <p>3. 250 tons of animal feeds distributed to the rehabilitated farms.</p> <p>4. Increasing the productivity of the livestock (meat and milk)</p>
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## 6.7. Proposed Project for Small-Scale Waste Water Treatment

<b>Project Title</b>	Waste Water Management
<b>Project Duration</b>	30 months
<b>Estimated Budget</b>	The total estimated budget will be about US \$1,100,000, taking into consideration that one small waste water treatment unit per house costs about US \$4,000 including project management and training cost. The beneficiaries' contribution will be 20% of the construction cost with US \$800/households. Thus the total beneficiaries' contribution will reach to US \$150,000.
<b>Stakeholders</b>	The project stakeholders will be the Palestinian Water Authority (PWA), local authorities, civil societies, and the NGOs.
<b>Targeted Areas</b>	The project will target the following localities: Taffuh, Halhul, Beit Um-mar, Beit Kahil, Yatta, As Samu` and Ar Rihiya.
<b>Beneficiaries</b>	This project will target 250 families (1,750 individuals)
<b>Project Description</b>	<p>The targeted areas use cesspits and open channels to dispose of their waste water. This untreated waste water is dumped in open areas leading to health problems such as the spread of diseases, and environmental problems such as water resources (springs &amp; cisterns) pollution.</p> <p>These targeted areas will be provided with small waste water treatment units, since unorganized housing distribution in these areas makes it hard to install medium or large sized units.</p>
<b>Project Objectives</b>	<p>To protect water springs and cisterns from waste water pollution coming from cesspits.</p> <p>To protect agricultural lands from waste water pollution.</p> <p>To protect the environment and to reduce health threats.</p> <p>To use the treated water as an alternative source for irrigation.</p> <p>To reduce the costs of cesspits' waste water disposal.</p> <p>To increase environmental awareness in waste water management.</p>

<b>Project Activities</b>	<p>Holding introductory meetings to announce the launch of the project and to present the local communities with a description of the project.</p> <p>Holding awareness campaigns to increase the environmental awareness concerning the importance and management of waste water treatment.</p> <p>Preparing a preliminary study to determine and select the beneficiaries and the suitable locations for the construction of small wastewater treatment units.</p> <p>Calling for bids.</p> <p>Constructing the waste water treatment units with drip irrigation networks.</p> <p>Paying follow up visits to the beneficiaries.</p> <p>Monitoring and evaluating the process.</p> <p>Preparing the final reports and disseminating the results.</p>
<b>Expected Results</b>	<p>1,750 individuals (250 housing units) will have a good waste water treatment system.</p> <p>Cost of waste water disposal reduced.</p> <p>Environment protected.</p> <p>Health threats decreased.</p> <p>Treated waste water available for agricultural uses.</p> <p>Agricultural irrigated areas increased by 125 dunums</p>

## 6.8. Proposed Project for Waste Water Treatment in Wadi El Samen

<b>Project Title</b>	Mitigating the Impact of Wadi El Samen Wastewater Stream on Health, Environment and Water Resources
<b>Project Duration</b>	24 months
<b>Estimated Budget</b>	The total estimated budget is US \$4,500,000.
<b>Stakeholders</b>	Ministry of Agriculture, Palestinian Water Authority, Ministry of Local Governorates, Local NGOs, Local Agricultural Societies.
<b>Targeted Areas</b>	Yatta, Beit Arma, Karma, Rabud, Abu Al Asja, Al Heila.
<b>Beneficiaries</b>	Local communities of the targeted localities.

<p><b>Project Description</b></p>	<p>The total localities that are connected to wastewater collection system in Hebron Governorate are 6 localities, forming 7.3% of the total localities at governorate, while the rest of the localities depend on cesspits and open channels.</p> <p>The main wastewater stream in Hebron Governorate flows through Valley El Samen, where sewage flows from Hebron city towards Yatta city. El Samen Valley starts from Al Heila area situated north of Yatta city through al Sada Valley and Abu El Foul Valley reaching Adh Dhahiriya city and then Al Naqab Desert, where approximately 2,300 thousand cubic meter of wastewater drained in the course of the main channel of Al Samen Village.</p> <p>The wastewater flow of Wadi El Samen is affecting many villages and towns in Heron Governorate through creating environmental and health problems to the surrounding areas and its local population. Additionally the flood of sewage water degrades the environmental quality of surrounding agricultural lands, since the wastewater flow affects soil quality, polluting, and damaging the cultivated crops. The area of affected agricultural lands is about 500 dunums, which is mainly cultivated with fruit trees.</p> <p>Furthermore, Wadi El Samen is located over a permeable geological area, which is considered as a water catchment area that supports the Eastern Ground Water Aquifer with harvested rainwater, thus the flow of wastewater in this environmentally sensitive area will create an environmental crises; resulting in deteriorating the ground water quality of the Eastern Aquifer.</p>
<p><b>Project Objectives</b></p>	<ul style="list-style-type: none"> <li>To improve the wastewater management in Wadi El Samen area;</li> <li>To improve the environmental and health conditions in Wadi El Samen area.</li> <li>To increase the agricultural areas by utilizing the treated wastewater in irrigation.</li> <li>To improve the income generation of local communities.</li> <li>To protect the surface and groundwater from potential contamination.</li> <li>To increase the food security of local communities.</li> <li>To increase human resource capacity and knowledge.</li> <li>To assist in lowering unemployment rate in the surrounding areas.</li> </ul>

<b>Project Activities</b>	<p>Construction of 2 km of waster water amine pipes in the populated areas to mitigate the impact the flow of wastewater in open stream.</p> <p>Establishment of 3 wastewater treatment units with a capacity of 100 cubic meters per day</p> <p>Providing of main pipelines to distribute to the treated wastewater to farmers.</p> <p>Training of local authorities on wastewater management taking into consideration the local circumstances.</p> <p>Creation of an association to follow up, monitor and manage the wastewater discharge in Wadi El Samen area.</p>
<b>Expected Results</b>	<p>The quality of surface and ground water resources in the targeted area conserved and improved.</p> <p>The irrigation water increased by 300 cubic meters per day</p> <p>Agricultural areas increased by 1000 dunums</p> <p>Food security increased at local level</p> <p>Adoption of new friendly technologies at feasible costs.</p> <p>Job creation at local level.</p> <p>Health and environmental conditions improved.</p> <p>Cost of waste water management reduced.</p> <p>Awareness regarding waste water management, gardening and the use of new technologies improved.</p> <p>A wastewater management system running and functional.</p>

### 6.9. Proposed Project for Waste Water Treatment in Wadi Al Arrub

<b>Project Title</b>	Mitigating the Impact of Wadi El Arub Wastewater Stream on Health, Environment, Agriculture and Water Resources.
<b>Project Duration</b>	18 months
<b>Estimated Budget</b>	The total estimated budget is US \$ 750,000.
<b>Stakeholders</b>	Ministry of Agriculture, Palestinian Water Authority, Ministry of Local Governorates, Local NGOs, Local Agricultural Societies
<b>Targeted Areas</b>	Kuaziba and Urgan Trad- Sair
<b>Beneficiaries</b>	Local communities of the targeted localities

<p><b>Project Description</b></p>	<p>The total localities that are connected to wastewater collection system in the Hebron Governorate are 6 localities, forming 7.3% of the total localities at governorate, while the rest of the localities depend on cesspits and open channels.</p> <p>The main wastewater stream in Shukh Alarub at Hebron Governorate flows through Wadi Alarub (Seal Alarub), where sewage flows from Alarub Camp towards Urgan Trad passing through Kuaziba. Seal Alarub starts from Alarub Camp area reaching to Urgan Trad.</p> <p>The flows wastewater of Seal Alarub (Alarub wastewater stream) is affecting many people in the area by creating environmental and health problems to the surrounding areas and its local population. Additionally, the flood of sewage water degrades the environmental conditions of surrounding agricultural lands since the wastewater flow affects soil quality by polluting and damaging the cultivated crops and fruit trees.</p> <p>Furthermore, Seal Alarub is located over a permeable geological area, which is considered as a water catchment area that supports the Eastern Ground Water Aquifer with harvested rainwater. Thus, the flow of wastewater in this environmentally sensitive area will create an environmental crises resulting in deteriorating the ground water quality of the Eastern Aquifer.</p>
<p><b>Project Objectives</b></p>	<p>Improve the wastewater management in Seal Alarub area.</p> <p>Improve the environmental and health conditions in Seal Alarub area.</p> <p>Increase the agricultural areas by utilizing the treated wastewater in irrigation.</p> <p>Improve the income generation of local communities.</p> <p>Protect the surface and groundwater from potential contamination.</p> <p>Increase the food security of local communities.</p> <p>Increase human resource capacity and knowledge.</p> <p>Assist in lowering unemployment rate in the surrounding areas.</p>
<p><b>Project Activities</b></p>	<p>Construct 200 m of wastewater main pipes in the populated areas to mitigate the impact of the flow of wastewater in open stream.</p> <p>Establish a wastewater treatment unit with a capacity of 100 cubic meters per day.</p> <p>Provide main pipelines to distribute the treated wastewater to farmers.</p> <p>Train the local authorities on wastewater management taking into consideration the local circumstances.</p> <p>Create an association to follow up, monitor and manage the wastewater discharge in Seal Alarub area.</p>

<b>Expected Results</b>	<p>The quality of surface and ground water resources in the targeted area conserved and improved.</p> <p>The irrigation water increased by 100 cubic meters per day.</p> <p>Agricultural areas increased by 100 dunums.</p> <p>Food security increased at local level.</p> <p>Adoption of new, friendly technologies at feasible costs.</p> <p>Job creation at local level.</p> <p>Health and environmental conditions improved.</p> <p>Cost of waste water management reduced.</p> <p>Awareness regarding waste water management, gardening and the use of new technologies improved.</p> <p>Wastewater management system was created and functioning.</p>
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