

Et Taiyiba Town Profile (including Badiw al Mu'arrajat Locality)



Prepared by



The Applied Research Institute – Jerusalem

Funded by



Spanish Cooperation

2012

Acknowledgments

ARIJ hereby expresses its deep gratitude to the Spanish agency for International Cooperation for Development (AECID) for their funding of this project.

ARIJ is grateful to the Palestinian officials in the ministries, municipalities, joint services councils, village committees and councils, and the Palestinian Central Bureau of Statistics (PCBS) for their assistance and cooperation with the project team members during the data collection process.

ARIJ also thanks all the staff who worked throughout the past couple of years towards the accomplishment of this work.

Background

This report is part of a series of booklets, which contain compiled information about each city, town, and village in the Ramallah Governorate. These booklets came as a result of a comprehensive study of all localities in Ramallah 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 Needs Assessment," the project funded by the Spanish Agency for International Cooperation for Development (AECID).

The "Village Profiles and Needs Assessment" 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 Ramallah Governorate.

The project's objectives are to survey, analyze, and document the available natural, human, socioeconomic and environmental resources, and the existing limitations and needs assessment for the development of the rural and marginalized areas in Ramallah Governorate. In addition, the project aims at preparing strategic developmental programs and activities to mitigate the impact of the current political, social, and economic instability with the focus on the agricultural sector.

All locality profiles in Arabic and English are available online at <http://vprofile.arij.org>.

Table of Contents

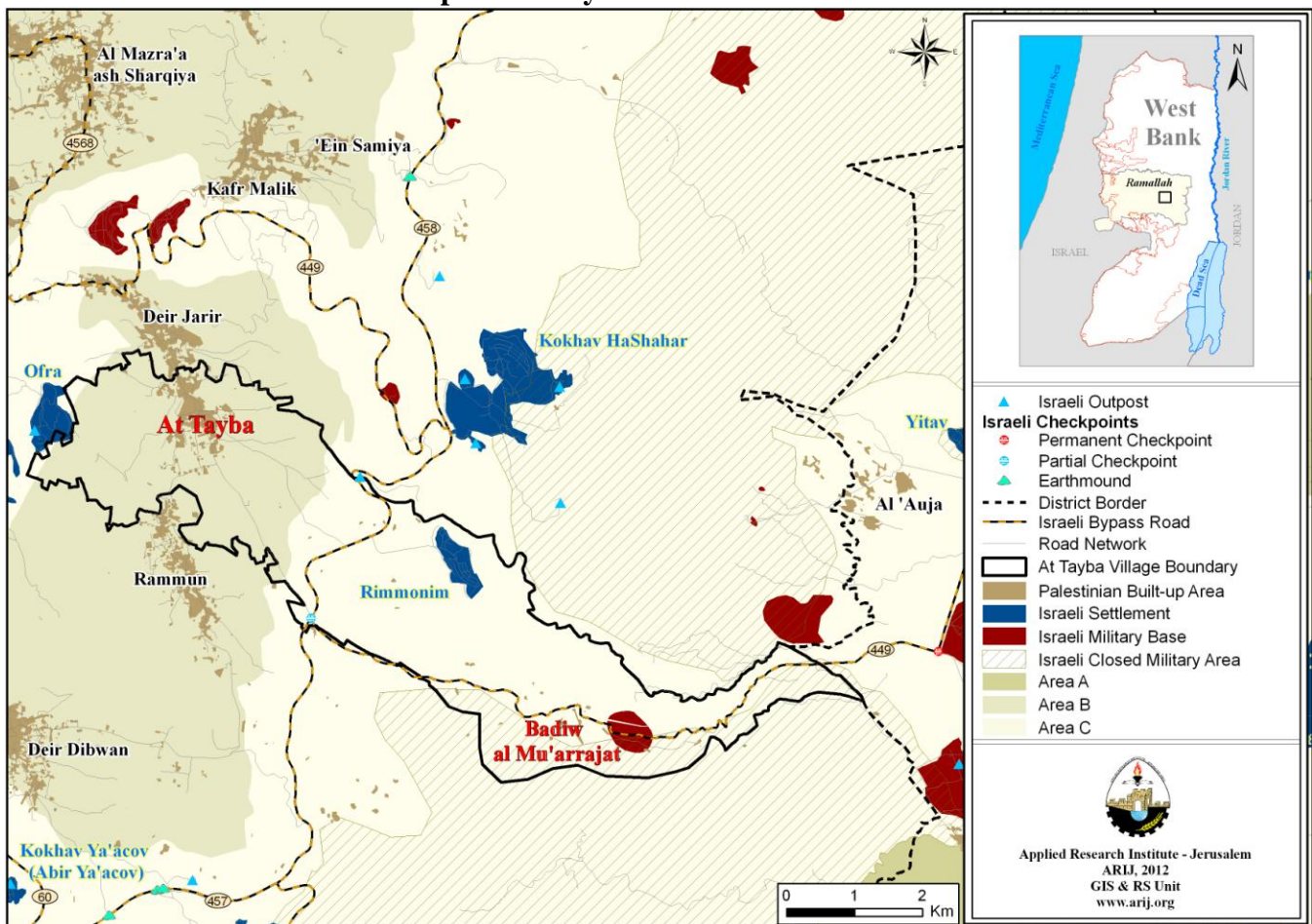
<i>Location and Physical Characteristics</i>	4
<i>History</i>	5
<i>Religious and Archaeological Sites</i>	6
<i>Population</i>	7
<i>Education</i>	8
<i>Health Status</i>	9
<i>Economic Activities</i>	10
<i>Agricultural Sector</i>	11
<i>Institutions and Services</i>	14
<i>Infrastructure and Natural Resources</i>	15
<i>Environmental Conditions in Et Taiyiba town</i>	17
<i>Environmental Conditions in Badiw al Mu'arrajat locality</i>	19
<i>Impact of the Israeli Occupation</i>	20
<i>Development Plans and Projects</i>	23
<i>Implemented Projects</i>	23
<i>Proposed Projects</i>	24
<i>Locality Development Priorities and Needs</i>	24
<i>References:</i>	27

Et Taiyiba Town Profile

Location and Physical Characteristics

Et Taiyiba town which includes Badiw al Mu'arrajat locality is a Palestinian town in the Ramallah Governorate located (horizontally) 12.5km east of Ramallah City. Et Taiyiba is bordered by Al 'Auja lands in Jericho Governorate and Deir Jarir lands to the east, Deir Jarir village to the north, 'Ein Yabrud village and Silwad lands to the west, and Rammun village to the south¹ (ARIJ GIS, 2012) (See map 1).

Map 1: Et Taiyiba location and borders



Source: ARIJ GIS, 2012

Et Taiyiba is located at an altitude of 815m above sea level with a mean annual rainfall of 433.3mm. The average annual temperature is 17 °C, and the average annual humidity is about 58.3% (ARIJ GIS, 2012).

¹ These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

Badiw al Mu'arrajat locality is located at an altitude of 326m above sea level with a mean annual rainfall of 289.6mm. The average annual temperature is 20 °C, and the average annual humidity is about 54.8% (ARIJ GIS, 2012).

Since 1997, Et Taiyiba has been governed by a municipal council, which is currently administrated by 9 members appointed by the Palestinian National Authority. There are also 6 employees working in the council. Moreover, the municipal council owns a permanent headquarters and a vehicle for the collection of solid waste. Et Taiyiba town is included within a Joint Services Council, which takes in: Et Taiyiba, Deir Jarir, and Rammun localities (Et Taiyiba Municipal Council, 2011).

It is the responsibility of the municipal council to provide a number of services to the residents of Et Taiyiba, including (Et Taiyiba Municipal Council, 2011):

- Solid waste collection, road construction and restoration and street cleaning.
- Organization of the construction and licensing processes.
- Protection of governmental properties in addition to the historical and archaeological sites in the town.
- Implementation of projects and studies for the town
- Provision of headquarters for governmental services.
- Provision of an ambulance for the town.

Concerning Badiw al Mu'arrajat, it owns a bus for students (19 passengers) (Badiw al Mu'arrajat Mayors Committee, 2012).

History

Et Taiyiba (literally meaning the good) town is an old Canaanite town that was called "Afra", meaning the gazelle, however, later on, in the 12th century, Salah ad Din al Ayyubi came to the town and called it Et Taiyiba, because of its good hearted residents. Moreover, the establishment of the town dates back to more than 2000 years before Christ and its current residents are descendent of the Arabian Peninsula (Et Taiyiba Municipal Council, 2011). Badiw al Mu'arrajat however was called after Al Mu'arrajat Street. Its establishment dates back to 1969 and its residents are descendents of Al 'Auja village in Jericho (Badiw al Mu'arrajat Mayors Committee, 2012) (See photo below for Et Taiyiba town).

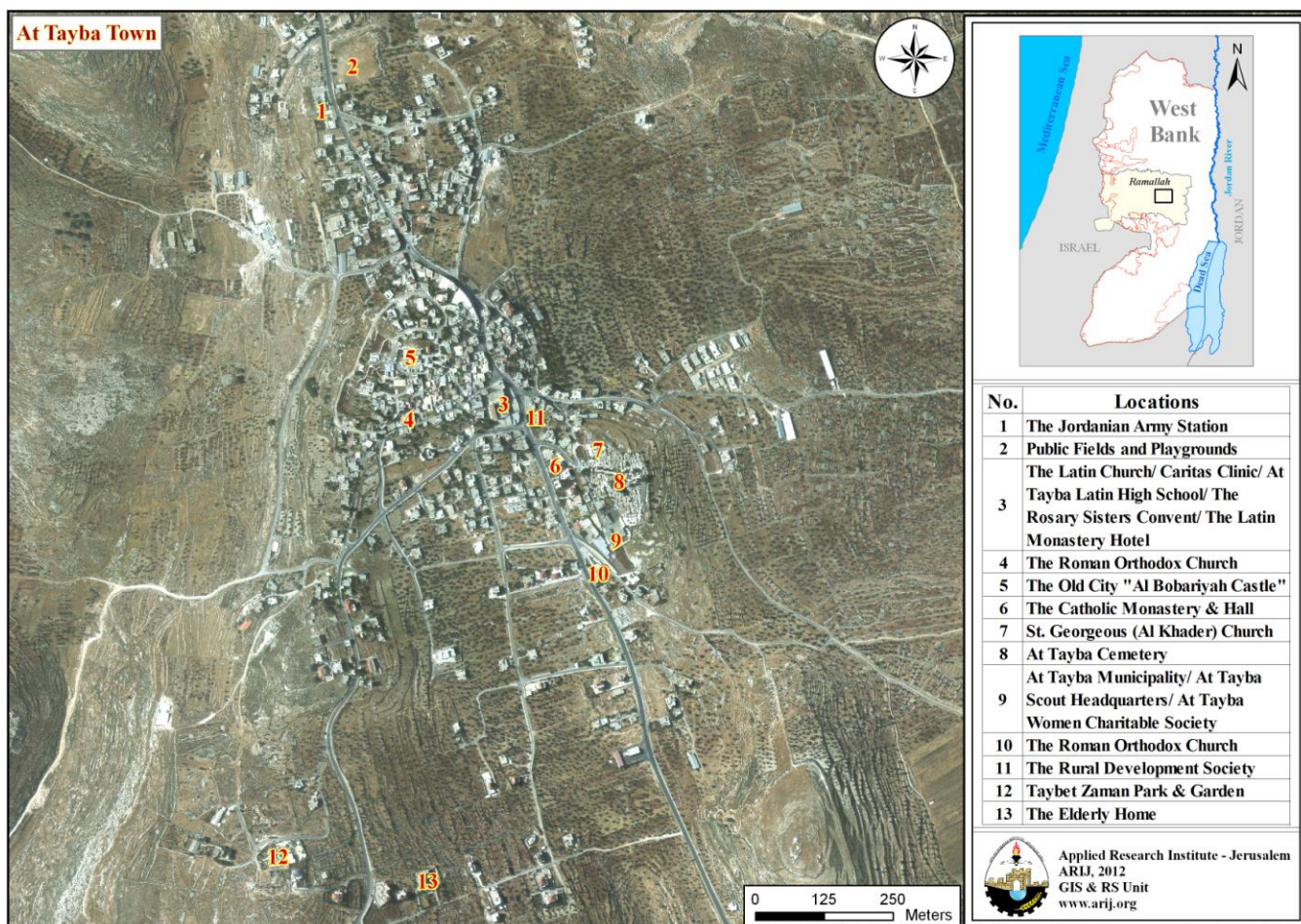
Photos of Et Taiyiba



Religious and Archaeological Sites

In terms of religious establishments, there are four churches in the town; the Latin Church, the Roman Orthodox Church, the Roman Catholic Church and Al Khader (St. Gorgeous) Church in addition to Priest Jack Convent which was constructed west of the town on the expenses of Priest Jack. As for the archaeological sites, there is Al Bobariya Castle (Et Taiyiba Municipal Council, 2011). Also, there are some buildings' foundations, mosaic, tombs carved in rocks and oil-presses (Al Dabbagh, 1991). It is worth mentioning that all of these sites are qualified for tourism (See Map 2).

Map 2: Main locations in Et Taiyiba Town



Source: ARIJ GIS, 2012

Population²

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of Et Taiyiba and Badiw al Mu'arrajat in 2007 was 2,072; of whom 1,033 are males and 1,039 are females. There are 445 households living in 552 housing units.

Age Groups and Gender³

The General Census of Population and Housing carried out by PCBS in 2007 showed the distribution of age groups in Et Taiyiba and Badiw al Mu'arrajat is as follows: 37.6% are less than 15 years old, 54.5% are between 15 - 64 years old and 7.7% are 65 years and older. Data also showed that the sex ratio of males to females in the town is 99.4:100, meaning that males and females constitute 49.9% and 50.1% of the population respectively.

Families

² These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

³ These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

The population of Et Taiyiba's is composed of several families; these are: Al Massis, Khouriyah, Tababzah, Al Mashriqi, Al Radadah, Musallam, Salah, Sahiliya, Sarhan, Ad Dararjeh, 'Ehlees, 'Aranki, Al 'Awawdah, Issa el Odah wa Hannah, and Khalil, Farhan and Judah family (Et Taiyiba Municipal Council, 2011). On the other hand, Badiw al Mu'arrajat locality residents are composed of Khalayfeh, Al Mleihat, Al 'Amireen families in addition to others (Badiw al Mu'arrajat Mayors Committee, 2012).

Immigration

According to the field survey conducted by ARIJ team in 2011 in Et Taiyiba town, around 150 people had left the town since the beginning of Al Aqsa Intifada in 2000 (Et Taiyiba Municipal Council, 2011), in addition to 15 people from Badiw al Mu'arrajat (Badiw al Mu'arrajat Mayors Committee, 2012).

Education⁴

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among Et Taiyiba and Badiw al Mu'arrajat population is about 11.3%, of whom 68.7% are females. Of the literate population, 16.3% can only read and write, with no formal education 20% had elementary education, 18.3% had preparatory education, 21.5% had secondary education, and 11.2% completed higher education. Table 1, shows the educational level in the town of Et Taiyiba, by sex, and educational attainment in 2007.

Table 1: Et Taiyiba & Badiw al Mu'arrajat population (10 years and above) by sex and educational attainment⁵

Sex	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Unknown	Total
M	54	139	169	150	168	30	34	2	4	2	11	763
F	119	111	137	130	161	37	56	1	3	3	11	769
T	173	250	306	280	329	67	90	3	7	5	22	1532

Source: PCBS, 2009.

With regards to the basic and secondary education institutions and schools in Et Taiyiba in the academic year 2010/2011, there are two private schools in the town but there are no kindergartens (Directorate of Education in Ramallah, 2011). However, there are no schools or kindergartens in Badiw al Mu'arrajat locality (Directorate of Education in Ramallah, 2011) (see Table 2).

Table 2: The Schools in Et Taiyiba by name, stage, sex, and supervising authority (2010/2011)

School Name	Supervising Authority	Sex
The Roman Orthodox Secondary School	Private	Mixed
Et Taiyiba Latin Secondary School	Private	Mixed

Source: Directorate of Education in Ramallah, 2011

⁴ These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

⁵ These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

In the town there are 735 students, 54 teachers, and 29 classes (Directorate of Education in Ramallah, 2011). It should be noted here that the average number of students per teacher in the school is nearly 14, while the average number of students per class is approximately 25.

Moreover, the educational sector in Et Taiyiba town suffers some obstacles, mainly (Et Taiyiba Municipal Council, 2011):

- The lack of classrooms.
- The lack of qualified football playgrounds.
- The lack of a large hall in the schools.
- The lack of support for private schools by the Ministry of Education.
- The lack of a gymnasium.

Furthermore, the educational sector in Badiw al Mu'arrajat locality suffers some obstacles as well, mainly (Badiw al Mu'arrajat Mayors Committee, 2012):

- The long distance between the locality and schools in neighboring localities.
- The lack of number of buses to transport students to neighboring localities.

Health Status

There are a number of health centers and services available in Et Taiyiba town, including: the Caritas Health Center which contains a physician clinic, a motherhood and childhood center and an X-ray center, also there is a private specialized physician clinic in the town, a private medical laboratory, two private dentist clinics, and a private pharmacy, and an ambulance (Et Taiyiba Municipal Council, 2011).

In emergency cases, residents of Et Taiyiba use Ramallah city health centers, which are 13km in distance from the town (Et Taiyiba Municipal Council, 2011).

Furthermore, the health sector in the town suffers some obstacles and problems, including (Et Taiyiba Municipal Council, 2011):

- The town ambulance is very old.
- The lack of a hospital.

On the other hand, Badiw al Mu'arrajat locality has no health centers or services available, thus patients are sent to the motherhood and childhood center in Deir Jarir or Caritas Health Center in Et Taiyiba town; 8km and 6km in distance from the locality, respectively (Badiw al Mu'arrajat Mayors Committee, 2012).

Furthermore, the health sector in Badiw al Mu'arrajat suffers from some problems, mainly (Badiw al Mu'arrajat Mayors Committee, 2012):

- The lack of a health center in the locality.

- The lack of an emergency center.
- The long distance between the locality and neighboring villages’ health centers.

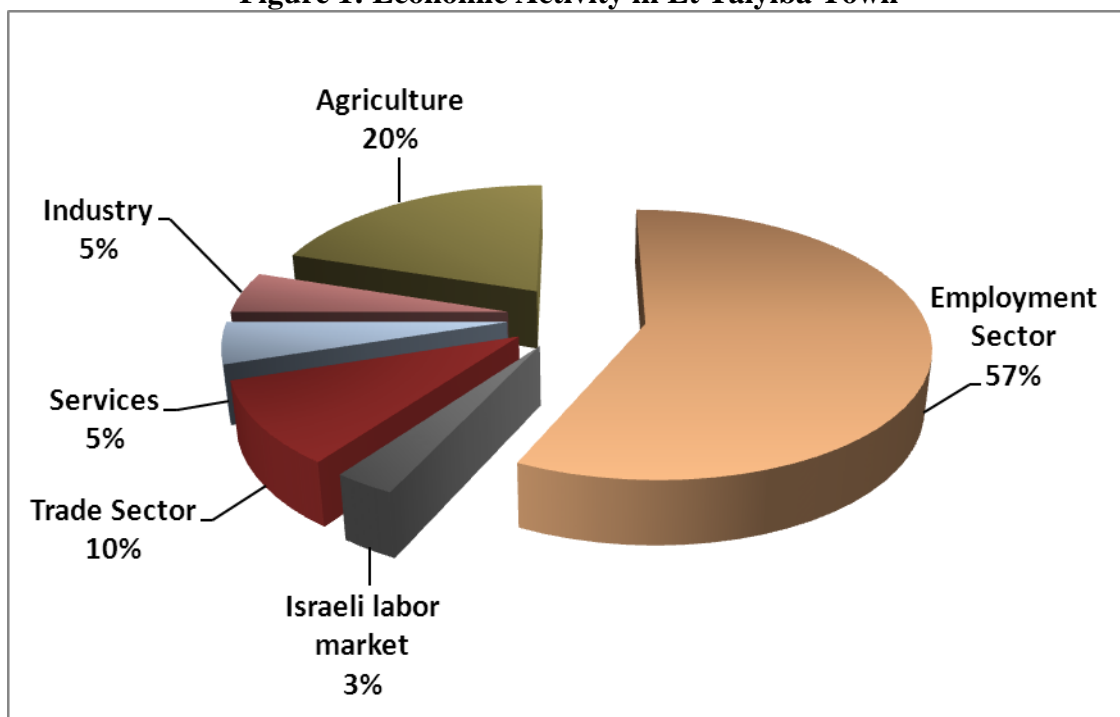
Economic Activities

The economy in Et Taiyiba is dependent on several economic sectors, mainly: the government and private employees sector which absorbs 57% of the town workforce (Et Taiyiba Municipal Council, 2011) (See Figure1).

The results of a field survey conducted by ARIJ team in 2011 for the distribution of labor by economic activity in Et Taiyiba are as follows (Et Taiyiba Municipal Council, 2011):

- Government or Private Employees Sector (57%)
- Agriculture Sector (20%)
- Trade Sector (10%)
- Industry (5%)
- Services Sector (5%)
- Israeli Labor Market (3%)

Figure 1: Economic Activity in Et Taiyiba Town



Source: Et Taiyiba Municipal Council, 2011

In term of industrial productions in Et Taiyiba town, there are some industrial facilities which the town is known for, such as beer production, in addition to embroidery, soap, ceramics and porcelain,

moreover, there are 13 groceries in the town, one vegetables and fruits store, one bakery, one butchery, 10 different service stores, 7 different professional workshops (carpentry, blacksmith,.. etc.), an olive oil-press, a stone cracker and two stone quarries (Et Taiyiba Municipal Council, 2011):

The unemployment rate in Et Taiyiba reached around 30% in 2011, and the economical groups most affected by the Israeli restrictions have been (Et Taiyiba Municipal Council, 2011):

- Workers in the industrial sector
- Workers in the trade sector
- Workers in the agricultural sector.
- Workers in the services sector.

Badiw al Mu'arrajat on the other hand, depends completely on the agricultural sector as it absorbs 100% of the local workforce (Badiw al Mu'arrajat Mayors Committee, 2012).

In term of industrial productions in Badiw al Mu'arrajat locality, there is none. The unemployment rate in Badiw al Mu'arrajat locality reached around 30% in 2012, and the economical group most affected by the Israeli restrictions has been workers in the agricultural sector (Badiw al Mu'arrajat Mayors Committee, 2012).

Labor Force⁶

According to the PCBS Population, Housing and Establishment Census-2007, 37.8% of the labor force was economically active, of whom 80.7% were employed, 61.9% were not economically active, 41.4% were students, and 38.4% were housekeepers (See table 3).

Table 3: Et Taiyiba & Badiw al Mu'arrajat population (10 years and above) by sex and employment status-2007

SEX	Economically Active				Not Economically Active						Un-known	Total
	Employed	Currently Unemployed	Unemployed (Never worked)	Total	Students	House-keeping	Unable to work	Not working & Not looking for work	Other	Total		
M	359	20	75	454	196	4	92	2	12	306	3	763
F	108	2	15	125	196	360	68	4	14	642	2	769
T	467	22	90	579	392	364	160	6	26	948	5	1532

Source: PCBS, 2009.

Agricultural Sector

Et Taiyiba & Badiw al Mu'arrajat lies on a total area of about 22,968 dunams of which 7,887 dunams are considered arable land, and 547 dunams are residential land (See table 4 and map 3).

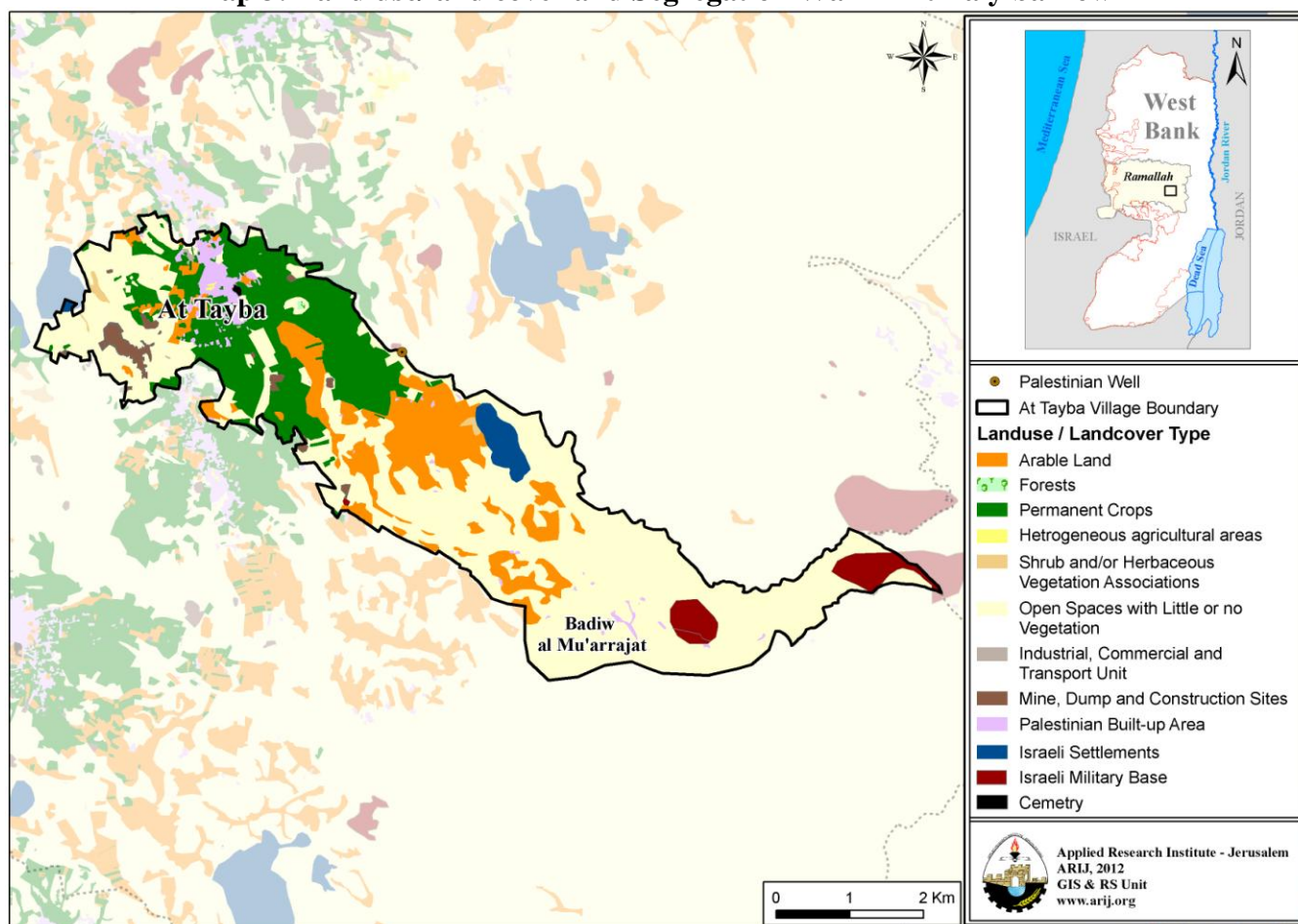
⁶ These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

Table 4⁷: Land use and land cover in Et Taiyiba & Badiw al Mu'arrajat (area in dunam)

Total Area	Built up Area	Agricultural area (7,887)				Inland water	Forests	Open Spaces	Area of Industrial, Commercial & Transport Unit	Area of Settlement, Military Bases & Wall Zone
		Permanent Crops	Green-houses	Range-lands	Arable lands					
22,968	547	4,418	0	84	3,385	0	11	13,063	336	1,124

Source: ARIJ – GIS Unit, 2012.

Map 3: Land use/land cover and Segregation Wall in Et Taiyiba Town



Source: ARIJ GIS, 2012

Table 5 shows the different types of rain-fed and irrigated open-cultivated vegetables in Et Taiyiba. The most commonly cultivated crop within this area is squash.

⁷ These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

Table 5: Total area of rain-fed and irrigated open cultivated vegetables in Et Taiyiba town (dunam)

Fruity vegetables		Leafy vegetable		Green legumes		Bulbs		Other vegetables		Total area	
RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.
16	1	0	0	10	0	0	0	0	1	26	2

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture - Ramallah, 2009

Table 6 shows the different types of fruit trees planted in the area. Et Taiyiba is famous for olive crops; there being a total of 3,377 dunams planted with olive trees.

Table 6: Total area of fruit and olive trees in Et Taiyiba town (dunam)

Olives		Citrus		Stone-fruits		Pome fruits		Nuts		Other fruits		Total area	
Rf	Irr.	Rf	Irr.	Rf	Irr.	Rf	Irr.	Rf	Irr.	Rf	Irr.	Rf	Irr.
3,377	0	0	0	30.5	0	3	0	40	0	93	0	3543.5	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture - Ramallah, 2009

As for the field crops in Et Taiyiba, cereals (in particular wheat and barley) are the most cultivated covering an area of about 1,700 dunams (See table 7).

Table 7⁸: Total area of field crops in Et Taiyiba & Badiw al Mu'arrajat (dunam)

Cereals		Bulbs		Dry legumes		Oil crops		Forage crops		Stimulating crops		Other crops		Total area	
Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr
1,700	0	13	0	35	0	8	0	100	0	0	0	0	0	1,856	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture - Ramallah, 2009

The difference between the two sets of results obtained from the Ministry of Agriculture and by ARIJ's GIS Unit in sizes of agricultural areas is explained by the fact that the Ministry of Agriculture and the Palestinian Central Bureau of Statistics (2010) conducted a survey which used a definition of agricultural areas based on land ownership. Therefore, the areas included in the survey were those of actual holdings of agricultural areas instead of seasonal ones. The survey did not consider fragmented and small seasonal cultivated areas in residential and agricultural areas. ARIJ's survey, however, indicated the existence of a high proportion of small and fragmented holdings (home gardens) throughout the occupied Palestinian territories, thus accounting for the larger area of agricultural holdings calculated by ARIJ.

The field survey shows conducted by ARIJ team that 4% of the residents in Et Taiyiba rear and keep domestic animals such as sheep, goats and others (Et Taiyiba Municipal Council, 2011) and 45% of Badiw al Mu'arrajat residents keep and rear domestic animals such as sheep and goats too (See Table 8).

⁸ These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

Table 8: Livestock in Et Taiyiba town⁹

Cows*	Sheep	Goats	Camels	Horses	Donkeys	Mules	Broilers	Layers	Bee Hives
0	1,114	484	0	0	0	0	88,000	6,500	74

*Including cows, bull calves, heifer calves and bulls

Source: Palestinian Ministry of Agriculture - Ramallah, 2009

There are also around 10 kilometers of agricultural roads in the town, suitable for tractors and agricultural machinery only (Et Taiyiba Municipal Council, 2011). The agricultural sector faces a lot of problems such as (Et Taiyiba Municipal Council, 2011):

- The lack of labor force.
- The lack of water sources.
- Inability to access agricultural lands.
- Existence of settlements near agricultural lands.
- The lack of machines and agricultural equipment.

There are also around 13 kilometers of agricultural roads in Badiw al Mu'arrajat locality, divided as follows (Badiw al Mu'arrajat Mayors Committee, 2012):

Table 9: Agricultural Roads in Badiw al Mu'arrajat locality and their Lengths

Suitability of Agricultural Roads	Length (km)
For vehicles	-
For tractors and agricultural machinery only	10
For animals only	3
Unsuitable	-

Source: Badiw al Mu'arrajat Mayors Committee, 2012

However, agricultural Sector facing a lot of problems such as (Badiw al Mu'arrajat Mayors Committee, 2012):

- The lack of institutions supporting agricultural reclamation of lands.
- The high costs of feed.
- The lack of harvesting cisterns.
- The lack of seeds.

Institutions and Services

Et Taiyiba town has few governmental institutions including a post office and a national security center, in addition to a number of local institutions and associations that provide services to various segments of society: children, youth, and women. The services are in the areas of culture, sports and others, including (Et Taiyiba Municipal Council, 2011):

- **Et Taiyiba Municipal Council:** Founded in 1997 by the Ministry of Local Government with the goal of taking care of all the issues in the town and providing various services to its population.

⁹ These information includes both localities of Et Taiyiba and Badiw al Mu'arrajat

- **Et Taiyiba Women Charitable Society:** Founded in 1949 by women of the town, the Society is focused on children.
- **Et Taiyiba Cooperative Society:** Founded in 2005 by women of the town aiming at serving women and developing their abilities in the fields of embroidery, couscous production and taking care of the elderly.
- **Et Taiyiba National Scout Group:** Founded in 1936 by the town residents.
- **Et Taiyiba Orthodox Club:** Founded in 1919 by the town residents with an interest in all sport, cultural and social activities for young people.
- **Et Taiyiba Cooperative Agricultural Society:** Founded in 2007 by the town farmers, it aims at providing services to farmers and reclaiming the lands.

Infrastructure and Natural Resources

Electricity and Telecommunication Services:

Et Taiyiba has been connected to a public electricity network since 1959; served by Jerusalem Electricity Company, which is the main source of electricity in the town. Approximately 100% of the housing units in the town are connected to the network. However, the town residents suffer some problems concerning electricity, mainly: the streets lighting and the electricity network's need for expansion (Et Taiyiba Municipal Council, 2011).

Furthermore, Et Taiyiba is connected to a telecommunication network and approximately 100% of the housing units within the town boundaries are connected to phone lines (Et Taiyiba Municipal Council, 2011).

Transportation Services:

There are only 5 taxis and two public buses in Et Taiyiba and these are considered to be the principle means of transportation in the town (Et Taiyiba Municipal Council, 2011). As for the road network in the town; there are a total of 6km of main roads and a total of 6km of secondary roads (Et Taiyiba Municipal Council, 2010) (See table 10).

Table 10: Roads in Et Taiyiba town

Status of Internal Roads	Road Length (km)	
	Main	Sub
1. Paved & in good condition	3	2
2. Paved but in poor condition	2	1
3. Unpaved	1	3

Source: Et Taiyiba Municipal Council, 2011

Moreover, there are 30 illegal/unlicensed cars in Badiw al Mu'arrajat which are considered the main means of transportations used by its residents. However, in addition to the lack of vehicles in the locality, residents suffer from the existence of earth mounds and military checkpoints on roads (Badiw al Mu'arrajat Mayors Committee, 2012). As for the road network in the locality, there are 8km of main roads which are paved and in good condition roads (Badiw al Mu'arrajat Mayors Committee, 2012).

Water Resources in Et Taiyiba town:

Et Taiyiba is provided with water by the Jerusalem Water Department, through the public water network established in 1960. Approximately, 90% of the housing units are connected to the water network (Et Taiyiba Municipal Council, 2011).

The quantity of water supplied to Et Taiyiba town in 2010 was about 94,631 cubic meters/ year (Jerusalem Water Authority, 2011), thus, the estimated rate of water supply per capita is about 190 liters/day. Here it should be noted that no Et Taiyiba citizen in fact consumes this amount of water due to water losses, which are about 26.5%. The losses happen at the main source, major transport lines, distribution network, and at the household level. Considering this, the rate of water consumption per capita in Et Taiyiba is 139.7 liters per day (Jerusalem Water Authority, 2011). This is considered a good rate compared with the minimum quantity proposed by the World Health Organization, which is 100 liters per capita per day.

Also, located in Et Taiyiba are 400 rainwater harvesting cisterns, which are considered the alternative source of water during water shortages mainly in summer (Et Taiyiba Municipal Council, 2011).

To regulate water costs, the water authority has adopted an upward rate where the price of water increases with increasing consumption. Table 11 shows the price of water by category of consumption.

Table 11: Water tariffs of Jerusalem Water Authority adopted since 01.01.2012

Consumption Category (m ³)	Domestic (NIS/m ³)	Industrial (NIS/m ³)	Tourist (NIS/m ³)	Commercial (NIS/m ³)	Public Institutions (NIS/m ³)
0 – 5	4.5	5.6	5.6	5.6	5.4
5.1 – 10	4.5	5.6	5.6	5.6	4.5
10.1 – 20	5.6	6.8	6.8	6.8	5.6
20.1 – 30	6.8	8.1	8.1	8.1	6.8
30.1+	9	9.9	10.8	9	9

Source: Jerusalem Water Authority, 2012

Sanitation in Et Taiyiba town:

Et Taiyiba lacks a public sewerage network; most of the town residents use cesspits for the disposal of waste water (Et Taiyiba Municipal Council, 2011).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day, is approximately 152.4 cubic meters, or 55,643 cubic meters annually. At the individual level in the town, it is estimated that the per capita wastewater generation is approximately 97.8 liters per day. The wastewater collected by cesspits is discharged by tankers directly to open areas or nearby valleys without any regard for the environment. Here it should be noted that there is no

wastewater treatment either at the source or at the disposal sites and this poses a serious threat to the environment and the public health (ARIJ - WERU, 2012).

Solid Waste Management in Et Taiyiba town:

Et Taiyiba Municipal Council is considered the official body responsible for managing solid waste, i.e. solid waste collection and disposal, generated from the citizens and establishments in the town, which is currently represented by solid waste collection and disposal. Due to the fact that the process of solid waste management is costly, a monthly fee has been charged on the population serviced by domestic solid waste collection and transportation services. This fee totals about 40 JD/year. However, the collected fees are not considered sufficient for good management of solid waste; only 40% of these fees are collected from the citizens (Et Taiyiba Municipal Council, 2011).

Most of the population in Et Taiyiba benefit from the solid waste services, where waste is collected from households, institutions, shops, and public squares in plastic bags. The Municipal Council collects the solid waste three times a week and transports it through the waste vehicle to the town's dumping site which is 2km from the town center. The common methods for solid waste treatment in this dumping site are setting waste on fire and burying it (Et Taiyiba Municipal Council, 2011).

The daily per capita rate of solid waste production in Et Taiyiba is 1.05kg. Thus the estimated amount of solid waste produced per day from the Et Taiyiba residents is nearly 1.4 tons, or 523 tons per year (ARIJ - WERU, 2012).

Environmental Conditions in Et Taiyiba town

Like other villages and towns in the governorate, Et Taiyiba experiences several environmental problems which must be addressed and solved. These problems can be identified as follows:

Water Crisis

- Water is cut off by the Jerusalem Water Authority for long periods of time during summer in several neighborhoods of the town.
- The quantity of water supplied to the town do not meet the residents' needs.
- High rate of water losses, because the water network is old and in need of rehabilitation and renovation.

Wastewater Management

- The absence of a public sewage network means that Et Taiyiba residents are forced to use unhygienic cesspits and open channels for the disposal of wastewater, and/or discharge wastewater in the streets. This is particularly common in winter, as citizens cannot afford the high cost of sewage tankers during this period. These methods facilitate environmental damage, health problems, and the spread of epidemics and diseases in the town. This wastewater also contaminates the groundwater and water collected in household cisterns (rainwater harvesting cisterns) as it mixes with the waste water thus becomes unsuitable for drinking. This happens

because most cesspits are built without lining, allowing wastewater to enter into the ground. The reason these are built by residents is to avoid the need to use sewage tankers. Moreover, the untreated wastewater collected from cesspits by sewage tankers is disposed of in open areas without concern for the damage it causes to the environment and to residents' health.

Solid Waste Management

- The lack of a central sanitary landfill to serve in Et Taiyiba and the other neighboring communities in the governorate is due mainly to the obstacles created by the Israeli authorities for local and national institutions in granting licenses to establish such a landfill, because the appropriate land is within Area C and under Israeli control. Additionally, the implementation of such projects depends on funding from donor countries. The lack of a sanitary landfill is a source of pollution to the groundwater and soil through the leachate produced from the solid waste, and produces bad odors and distortion of the landscape.

Water Resources in Badiw al Mu'arrajat locality:

Badiw al Mu'arrajat is not connected to a public network, hence it is provided with water by Mekerot Israeli Company, through tanks (Badiw al Mu'arrajat Mayors Committee, 2012).

The quantity of water supplied to Badiw al Mu'arrajat locality is between 300 to 400 cubic meters/ day (Badiw al Mu'arrajat Mayors Committee, 2012), thus, the estimated rate of water supply per capita is about 95 liters/day. This is considered a low rate compared with the minimum quantity proposed by the World Health Organization, which is 100 liters per capita per day. However, each cubic meter of water costs 4 NIS; not including the transportations' costs (Badiw al Mu'arrajat Mayors Committee, 2012).

Sanitation in Badiw al Mu'arrajat locality:

Badiw al Mu'arrajat lacks a public sewerage network; a small number of the locality residents use cesspits for the disposal of waste water while the rest of house units have no mean for the disposal of waste water (Badiw al Mu'arrajat Mayors Committee, 2012).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day is approximately 53 cubic meters, or 19 thousand cubic meters annually. At the individual level in the locality, it is estimated that the per capita wastewater generation is approximately 76 liters per day. The wastewater collected by cesspits is discharged directly to open areas or nearby valleys without any regard for the environment. Here it should be noted that there is no wastewater treatment either at the source or at the disposal sites and this poses a serious threat to the environment and the public health (ARIJ - WERU, 2012).

Solid Waste Management in Badiw al Mu'arrajat locality:

Badiw al Mu'arrajat lacks a system for managing solid waste, i.e. solid waste collection and disposal, generated from the citizens and establishments in the locality (Badiw al Mu'arrajat Mayors Committee, 2012).

Waste generated from households is being disposed randomly into neighboring lands and on roads sides, where it is being burned in an unhealthy way (Badiw al Mu'arrajat Mayors Committee, 2012).

The daily per capita rate of solid waste production in Badiw al Mu'arrajat is 0.7kg. Thus the estimated amount of solid waste produced per day from the Badiw al Mu'arrajat residents is nearly 0.5 ton, or 200 tons per year (ARIJ - WERU, 2012).

Environmental Conditions in Badiw al Mu'arrajat locality

Badiw al Mu'arrajat experiences several environmental problems which must be addressed and solved. These problems can be identified as follows:

Water Crisis

- The lack of a water network to supply the locality residents, thus forcing residents to transfer water through tanks which costs a lot of money compared to other areas.
- The lack of water harvesting cisterns.

Wastewater Management

- The absence of a public sewage network means that in Badiw al Mu'arrajat some residents are forced to use unhygienic cesspits for the disposal of wastewater while the majority of citizens do not have any means for disposal of waste, leading to the discharge of wastewater in the streets. This is particularly common in winter. These methods facilitate environmental damage, health problems, and the spread of epidemics and diseases in the locality. This wastewater also contaminates the groundwater and water collected in household cisterns (rainwater harvesting cisterns), as it mixes with the waste water thus becomes unsuitable for drinking. This happens because most cesspits are built without lining, allowing wastewater to enter into the ground. The reason these cesspits are built is to avoid the need to use sewage tankers. Moreover, the untreated wastewater collected from cesspits by sewage tankers is disposed of in open areas without concern for the damage it causes to the environment and to residents' health.

Solid Waste Management

- The lack of service for the management of solid waste in addition to the absence of a central sanitary landfill to serve Badiw al Mu'arrajat, results in residents disposing waste on nearby lands and roads sides, where waste is being burned to reduce its size. These actions are a source of pollution to the groundwater and soil through the leachate produced from the solid waste. They also produce bad odors and distorts the landscape.

Impact of the Israeli Occupation

Geopolitical status in Et Taiyiba

According to the Oslo II Interim Agreement signed between the Palestinian Liberation Organization (PLO) and Israel on 28th September 1995, Et Taiyiba was divided into politically classified areas “B” and “C”. Approximately 8,032 dunums (35% of the town’s total area) is classified as area B, where the Palestinian National Authority has complete control over civil matters and Israel continues to have overriding responsibility for security. Area B constitutes most of the currently inhabited Palestinian areas, including municipalities, villages and some refugee camps. It is noted that the entirety of the town’s population resides in area B. The remaining area of the town constitutes 14,936 dunums (65% of the total area), and is classified as area C, where Israel retains full control over security and administration related to the territory (table 1). In area C Palestinian building and land management is prohibited unless through consent or authorization by the Israeli Civil Administration. It is noted here that Badu al Mu’arrajat region, located within eastern Et Taiyiba exists in area C. The majority of the lands lying within area C is classified as agricultural areas and open spaces in addition to lands confiscated for settlement purposes.

Table 12: The Geopolitical Divisions of Et Taiyiba– Ramallah Governorate

Area	Area in dunums	Percent of Total town area
Area A	0	0
Area B	8,032	35
Area C	14,936	65
Nature Reserve	0	0
Total	22,968	100

Source: Source:ARIJ-GIS, 2011

It is further noted that 14,793 dunums of land in Et Taiyiba town (64.4% of its total area) are located within the eastern region of the West Bank, which is known today as the ‘Eastern Segregation Zone.’ Following the Israeli occupation of the West Bank including East Jerusalem and the Gaza Strip in 1967, Security Council Resolution 242 was drawn up. This resolution provides for the ‘Termination of all claims or states of belligerency and respect for and acknowledgement of the sovereignty, territorial integrity and political independence of every State in the area and their right to live in peace within secure and recognized boundaries free from threats or acts of force. Israel used this Resolution to begin making amendments to the borders that existed before the 1967 war, through considering the Resolution’s provisions for ‘secure and recognized borders’ to apply to the State of Israel in this case. The amendments to the State’s borders made at this time paved the way for future settlement plans in the region. The deputy Israeli Prime Minister at the time, Yigal Allon, proposed to the Israeli cabinet, immediately after the 1967 war, that Israel create new borders based mainly on control of the eastern slopes of the West Bank and towards the bottom of the Jordan Valley, as well as the Western Sahara of the West Bank adjacent to the Dead Sea. It was suggested that this could be achieved through building a series of Israeli settlements of approximately 20 kilometers width from the West Bank as a first step towards formally annexing these proposed regions to the State of Israel. The series of Israeli settlements built upon Yigal Allon’s plan

covers most of the Palestinian areas in the Jordan Valley, lands surrounding East Jerusalem, the Gush Etzion bloc south of Bethlehem, and the southern area of Hebron city.

During June 2002, Israeli authorities began implementing a unilateral isolation policy between Israel and the occupied Palestinian territories through the creation of an isolated area in the western part of the West Bank, stretching from its north to its south. This plan has enabled Israel to take over additional areas of agricultural fertile lands and buffer Palestinian communities into small parts, thus undermining regional integration between Palestinian villages and towns, controlling the natural resources and connecting the majority of Israeli settlements. Israel has further created an eastern isolation zone along the Jordan Valley area through the Israeli army's tight control over all roads leading to the eastern region in the West Bank thus increasing the suffering of Palestinian residents in the area through restricting human movements and the movement of agricultural products. These actions confirm former Israeli Prime Minister Ariel Sharon's 2004 statement, in response to a question asked about the wall in the Jordan Valley area; "I do not see a wall in the eastern region unless need arises. Here and there, we will conceal access to the eastern region through military barriers."

Et Taiyiba Town and the Israeli Occupation Practices

Et Taiyibatown has been subjected to numerous land confiscations to the benefit of the various Israeli interests, represented in the construction of Israeli settlements, outposts and military checkpoints on the town territories in addition to the construction of Israeli bypass roads to connect Israeli settlement to one another. What follows is a breakdown of the various Israeli confiscations of Et Taiyibatown territories:

Israeli Occupation Authorities confiscated 415 dunums of land in Et Taiyiba town for the construction of Rimmonim Israeli settlement on the town's eastern lands and Ofra Israeli settlement west of the town which was mainly established on lands of 'Ein Yabrud and Silwad villages and part of Et Taiyiba lands. Both settlements are currently inhabited by around 4,000 Israeli settlers (table 13).

Table 13: Israeli Settlements constructed over Et Taiyiba town lands

Settlement Name	Year of construction	Area confiscated	Population of settlers (2009)
Rimmonim	1977	393	749
Ofra	1975	22	3183
Total		415	3,932

Source: ARIJ-GIS, 2011

Attacks carried out by Israeli settlers living in illegal settlements surrounding Et Taiyiba have had a serious and significant impact on the lives of the town's residents in addition to their property. These attacks allow settlers to control further Palestinian lands adjacent to the settlements by preventing landowners from accessing it. Settlers near Et Taiyiba have additionally enclosed land using barbed wire and planting trees to increase their control. Settlers have also burnt and uprooted trees planted and owned by Palestinians and attacked landowners to intimidate and deter them from returning to their lands nearby to the aforementioned settlements.

Following the outbreak of the second Palestinian Intifada during September 2000, the IOF established a non permanent military checkpoint, for several years, in addition to a military observation tower, on Et

Taiyiba-Al Mu'arajat crossroad. This crossroad on bypass road no 458 is considered a linking point between Ramallah and Jericho cities through Al Mu'arajat road. Palestinians are exposed to inspection and their IDs are being checked by Israelis when passing this crossroad. Such Israeli barriers aim to restrict and control the movement of Palestinians in this town.

The Israeli Government confiscated large areas of agricultural and non-agricultural lands to open several bypass roads that stretch thousands of kilometers from the north to the south of the West Bank, to link Israeli settlements with one another, divide and section off Palestinian lands, whilst enhancing security control over it. Israel has further confiscated lands near Et Taiyiba and to its east for the construction of Israeli bypass roads 458 and 449. However, the real threat of bypass roads lies in the buffer zone formed by the Israeli Occupation Force (IOF) along these roads, extending approximately 75 m on each side. These buffer zones dramatically increase the total area of land affected by the construction of the bypass roads.

Israeli Demolition and Evacuation Plans Targeting Badu al Mu'arajat Area

Palestinian communities in the Palestinian Jordan Valley area (Eastern Segregation Zone) suffer from numerous Israeli policies of persecution. After 1967, Israel targeted eastern regions of the West Bank aiming to stop Palestinian urban and economic development of Palestinians in the region and displacing them from their residence so that they can implement their settlement plans and strengthen its presence in the occupied Palestinian territories. As is the case in Badu al Mu'arajat area in EtTaiyiba town, this policy has been an obstacle to the growth of Palestinian communities in the Eastern Segregation Zone where construction is often prevented unless permission is issued by the Israeli Civil Administration. Israel has further drained existing natural sources such as fertile agricultural lands and natural water sources (i.e. wells and springs) from Et Taiyiba and used them for the benefit of neighboring Israeli settlements. One example of such natural resource theft can be seen in the Israeli construction of artisan wells on seized or settlement lands which draws water from surrounding Palestinian wells. This is implemented as a measure in order to force Palestinians to leave.

Israeli policies aimed at seizing territory from the Eastern Segregation Zone is in lines with the policy of current Israeli Prime Minister Benjamin Netanyahu, who explained on 3rd June 2005 Israel's unwillingness to abandon the Jordan Valley and Eastern Segregation Zone areas: **"The Jordan Valleys will not be included in any of the Israeli withdrawal procedures.' 'The Valleys will remain under Israeli control forever.' 'It's the eastern defensive shield for Israel ... and we will not go back to the 1967 borders.**"¹⁰

Furthermore, Israel's demolition policy in the Eastern Segregation Zone has come to confirm the determination of the Israeli government to move forward the implementation of its settlement plans. The demolition policy further proves that the destruction of Palestinian homes and other properties have not been carried out on the basis of needs, military necessities¹¹ and/or unauthorized building, but for reasons benefiting Israeli interests. Of these State interests, the building of new Israeli settlements is clearly the most important specifically in the Eastern Segregation Zone and regions of East Jerusalem. In

¹⁰Netanyahu Warns Against PA Terror State, Leaving Jordan Valley.' Israel National News, 03 June 2005. <<http://www.israelnationalnews.com/News/News.aspx/83197>>.

¹¹Article 53 of the Forth Geneva Convention [1] in 1949.

the past years Israel has stepped up targeting Al Mu'arajat area. That which follows is a breakdown of some of the demolitions on the part of Israel which have impact this village.

On 9th July 2008, the Israeli occupation army distributed notices to demolish three Bedouin communities located on Al Mu'arajat road, which in reality represents a small number of barracks and tents inhabited by approximately 100 persons. The notification represented an order to evacuate the area under the pretext of the region becoming a closed Israeli military area. However, since the notifications did not specify a particular deadline for evacuation, Bedouin owners of these tents did not take the subject seriously, especially considering the claims they have in living in this region for more than twenty years. On September 20th 2008, representatives from the Israeli Organization Department, guarded by occupying forces and a bulldozer, without warning or notice of eviction, demolished the tents and barracks in addition to destroying the zinc sheeting belonging to the farmers. The demolition process included the destruction of 16 barracks made of zinc and 17 sheets, a fence and tubes to install the tents, in addition to seizing 5 tons of feed.

Finally, on the morning of March the 9th 2011, the sub-inspection committee for building and organization of the Israeli Civil Administration delivered notices to four Bedouin families of Arabal Ka'abina in Al Mu'arajat area to stop their construction of their homes and facilities (three barracks for sheep and two homes) under the pretext of building without a permit. The orders gave owners three days to dismantle their homes and their facilities made of corrugated iron and tarpaulin. Due to the location of Al Mu'arajat area within the eastern region of the West Bank which most of its territory have been classified by the Israeli government after 1967 as "closed military lands", it is considered an unrecognized area and its residents are illegal, thus the occupation seeks to displace and uprooted its residents from the region in order to serve the occupation settlement interests.

Development Plans and Projects

Implemented Projects

Et Taiyiba Municipal Council and Badiw al Mu'arajat locality has implemented several development projects in Et Taiyiba and Badiw al Mu'arajat, during the last five years (See Table 14).

Table 14: Implemented Development Plans and Projects in Et Taiyiba & Badiw al Mu'arajat during the Last Five Years

Name of the Project	Type	Year	Donor
In Et Taiyiba			
The sewage network project	Infrastructure	2011	European Union
Construction of the Roman Orthodox School	Educational	2011	ANERA
Establishment of a public park	Entertainment	2011	CHF
Pavement of internal roads & the town main entrances	Infrastructure	2009	USAID

Reconstruction of the old city	Infrastructure	2008/2009/ 2010	Spanish Cooperation/ Swedish Cooperation & CHF
Establishment of a post office	Public Services	2010	Donations from Expatriates & Town Residents
Establishment of a headquarters for the civil defense	Public Services	2011	U.S.A. Consulate
Establishment of a headquarters for the police station	Public Services	2011	U.S.A. Consulate
Purchase of a waste vehicle	Public Services	2010	Denmark
In Badiw al Mu'arrajat			
Distributing barley seeds	Public Services	2011	ACF
Distributing blankets and half ton of wood	Public Services	2012	RASAD Institution
Distributing barracks and water tanks	Public Services	2009	Palestinian National Authority
Source: Et Taiyiba Municipal Council, 2011 & Badiw al Mu'arrajat Mayors Committee, 2012			

Proposed Projects

Et Taiyiba Municipal Council, in cooperation with the civil society organizations in the town and the town residents, looks forward to the implementation of several projects in the coming years. The project ideas were developed during the PRA workshop that was conducted by ARIJ staff in the town. The projects are as follows, in order of priority, from the viewpoint of the participants in the workshop:

1. Protecting agricultural lands from overgrazing and reclaiming agricultural lands to encourage farmers to expand crops.
2. Finding a solution to the water problem in the town by providing a piece of land suitable for the construction of a water reservoir that can meet the town's water needs.
3. Creating job opportunities by implementing productive projects for young people and graduates.
4. Creating youth centers and sports clubs.

Locality Development Priorities and Needs

Et Taiyiba and Badiw al Mu'arrajat localities suffer from a significant shortage of infrastructure and services. Tables 15 & 16 show the development priorities and needs in both localities; according to the municipal council and mayors committee's perspectives.

Table 15: Development Priorities and Needs in Et Taiyiba

No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
Infrastructural Needs					
1	Opening and Pavement of Roads	*			25km*
2	Rehabilitation of Old Water Networks	*			5km
3	Extending the Water Network to Cover New Built up Areas	*			3km
4	Construction of New Water Networks	*			8km
5	Rehabilitation/ Construction of New Wells or Springs			*	
6	Construction of Water Reservoirs	*			1000 cubic meters
7	Construction of a Sewage Disposal Network	*			50km
8	Construction of a New Electricity Network	*			5km
9	Providing Containers for Solid Waste Collection	*			100 containers
10	Providing Vehicles for Collecting Solid Waste			*	
11	Providing a Sanitary Landfill	*			
Health Needs					
1	Building of New Clinics or Health Care Centres	*			1 health center
2	Rehabilitation of Old Clinics or Health Care Centres	*			1 health center
3	Purchasing of Medical Equipment and Tools			*	
Educational Needs					
1	Building of New Schools			*	
2	Rehabilitation of Old Schools	*			elementary level
3	Purchasing of New Equipment for Schools			*	
Agriculture Needs					
1	Rehabilitation of Agricultural Lands	*			100 dunams
2	Building Rainwater Harvesting Cisterns	*			30 cisterns
3	Construction of Barracks for Livestock			*	
4	Veterinary Services	*			
5	Seeds and Hay for Animals			*	
6	Construction of New Greenhouses			*	
7	Rehabilitation of Greenhouses			*	
8	Field Crops Seeds	*			
9	Plants and Agricultural Supplies	*			

Source: Et Taiyiba Municipal Council, 2011

* 7km are main roads, 3km are sub roads and 15km are agricultural.

Table 16: Development Priorities and Needs in Badiw al Mu'arrajat

No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
Infrastructural Needs					
1	Opening and Pavement of Roads	*			18km*
2	Rehabilitation of Old Water Networks			*	
3	Extending the Water Network to Cover New Built up Areas			*	
4	Construction of New Water Networks			*	
5	Rehabilitation/ Construction of New Wells or Springs			*	
6	Construction of Water Reservoirs			*	
7	Construction of a Sewage Disposal Network			*	
8	Construction of a New Electricity Network			*	
9	Providing Containers for Solid Waste Collection			*	
10	Providing Vehicles for Collecting Solid Waste			*	
11	Providing a Sanitary Landfill			*	
Health Needs					
1	Building of New Clinics or Health Care Centres	*			1 clinic
2	Rehabilitation of Old Clinics or Health Care Centres			*	
3	Purchasing of Medical Equipment and Tools			*	
Educational Needs					
1	Building of New Schools	*			all levels
2	Rehabilitation of Old Schools			*	
3	Purchasing of New Equipment for Schools			*	
Agriculture Needs					
1	Rehabilitation of Agricultural Lands	*			25 dunams
2	Building Rainwater Harvesting Cisterns	*			50 cisterns
3	Construction of Barracks for Livestock	*			100 barracks
4	Veterinary Services	*			
5	Seeds and Hay for Animals	*			5000 tons/ year
6	Construction of New Greenhouses			*	
7	Rehabilitation of Greenhouses			*	
8	Field Crops Seeds	*			
9	Plants and Agricultural Supplies			*	

* 8km are main roads and 10km are sub and agricultural roads at the same time.

Source: Badiw al Mu'arrajat Mayors Committee, 2012

References:

- Al Dabbagh, M. Our Country, Palestine; Chapter 8, Part Two. Kafr Qari' – Palestine. Dar al Huda Press, 1991.
- *Applied Research Institute - Jerusalem (ARIJ)*, 2012. Geographic Information Systems and Remote Sensing Unit; Land Use Analysis (2010) – Half Meter High Accuracy. Bethlehem - Palestine.
- Applied Research Institute - Jerusalem (ARIJ), 2012. Geographic Information Systems and Remote Sensing unit Database. Bethlehem - Palestine.
- Applied Research Institute - Jerusalem (ARIJ). 2012. Water & Environment Research Unit Database (WERU). Bethlehem – Palestine.
- *Badiw al Mu'arrajat Mayors Committee*, 2012
- *Et Taiyiba Municipal Council*, 2011.
- Jerusalem Water Authority (for Ramallah & Al Bireh areas) (2011). Detection showing the amount of water sold from 1/1/2010 till 31/12/2010. Ramallah – Palestine.
- Jerusalem Water Authority (2012). Jerusalem Water Authority's Website; Data Retrieved on the first of March. <http://www.jwu.org/newweb/atemplate.php?id=87>.
- Ministry of Education & Higher Education (MOHE) - Ramallah, 2011. Directorate of Education; A database of schools (2010/2011). Ramallah – Palestine.
- Palestinian Ministry of Agriculture (MOA), 2009. Directorate of Agriculture data (2008/2009). Ramallah - Palestine.
- *Palestinian Central Bureau of Statistics*. 2009. Ramallah, Palestine: General Census of Population and Housing Censuses, 2007.