

# **Silwad Town Profile (including Silwad Camp)**



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## ***Acknowledgments***

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## 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 Content

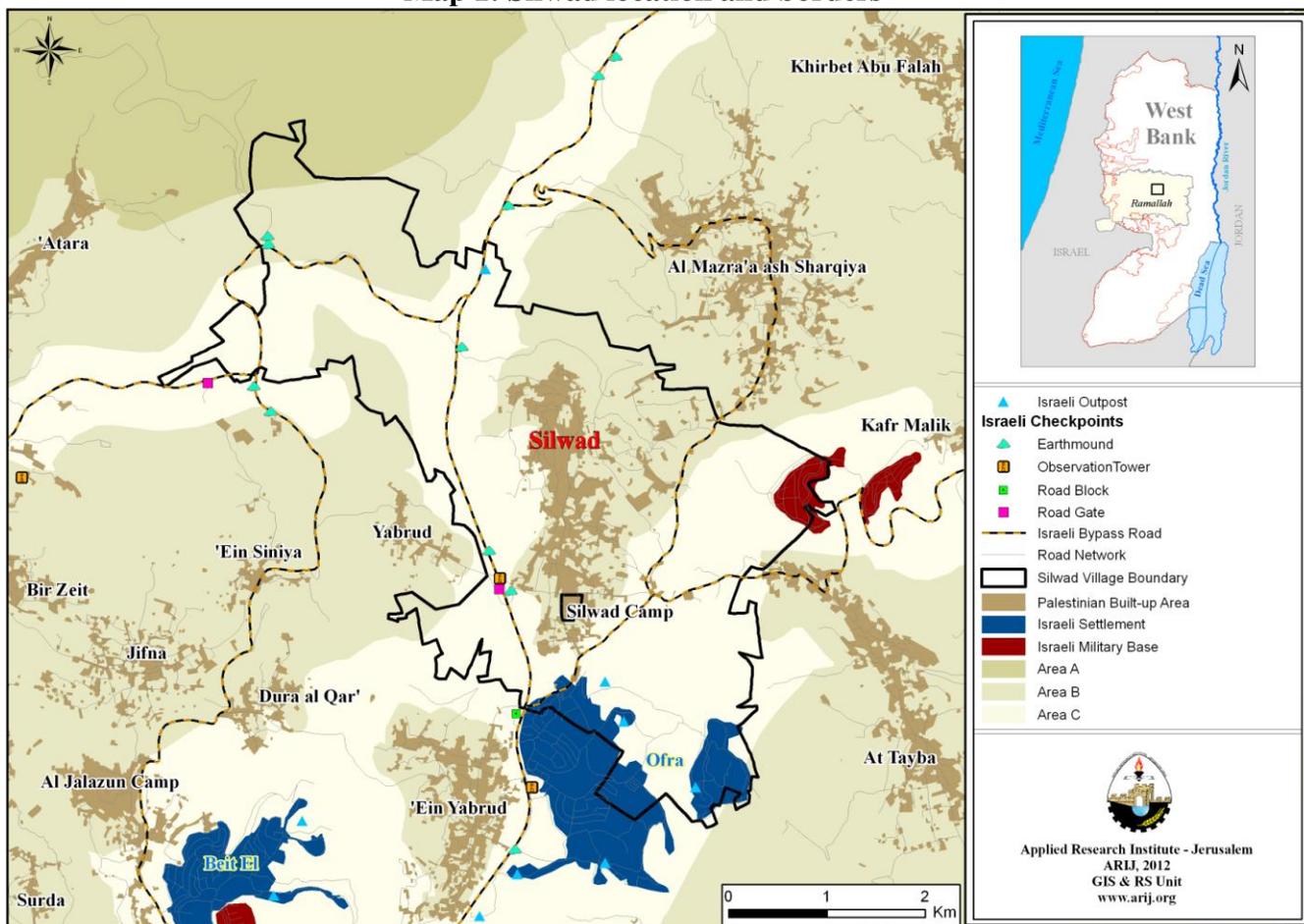
<i>Location and Physical Characteristics</i> _____	4
<i>History</i> _____	5
<i>Religious and Archaeological Sites</i> _____	6
<i>Population</i> _____	7
<i>Education</i> _____	8
<i>Health Status</i> _____	9
<i>Economic Activities</i> _____	10
<i>Agricultural Sector</i> _____	12
<i>Institutions and Services</i> _____	14
<i>Infrastructure and Natural Resources</i> _____	15
<i>Development Plans and Projects</i> _____	23
<i>Implemented Projects</i> _____	23
<i>Proposed Projects</i> _____	24
<i>Locality Development Priorities and Needs</i> _____	25
<i>References:</i> _____	26

# Silwad Town Profile

## Location and Physical Characteristics

Silwad town, which includes Silwad Camp, is a Palestinian town in Ramallah Governorate, located 10km (horizontally) northeast of Ramallah City. Silwad is bordered by Deir Jarir and Et Taiyiba villages to the east, Al Mazra'a ash Sharqiya and Jaljiliya to the north, Yabrud and 'Atara villages, and 'Ein Siniya territories to the west and 'Ein Yabrud to the south<sup>1</sup> (ARIJ GIS, 2012) (See map 1)

Map 1: Silwad location and borders



Source: ARIJ GIS, 2012

Silwad town is located at an altitude of 851m above sea level with a mean annual rainfall of 496.4mm. The average annual temperature is 16° C, and the average annual humidity is approximately 60% (ARIJ GIS, 2012).

<sup>1</sup> These information covers Silwad town and Silwad camp.

While Silwad camp is located at an altitude of 843m above sea level with a mean annual rainfall of 487.1mm. The average annual temperature is 16° C, and the average annual humidity is approximately 60% (ARIJ GIS, 2012).

Since 1964, Silwad town has been governed by a Municipal Council which is currently administrated by 11 members appointed by the Palestinian National Authority with an additional 18 employees working in the Council. Moreover, the Council owns a permanent headquarters and a vehicle for the collection of solid waste in addition to a pick up (Silwad Municipality, 2011).

It is the responsibility of the Municipal Council to provide a number of services to the residents of Silwad, including (Silwad Municipality, 2011):

- Solid waste collection, road construction and restoration, and street cleaning.
- Organizing construction and licensing processes.
- Providing a town ambulance.
- Providing slaughterhouses and organizing the animal slaughtering process.
- Providing children's kindergartens.
- Implementing projects and studies pertaining to the town development.

On the other hand, since 1990, Silwad camp has been governed by a people's committee which is currently administrated by 7 members appointed by the Palestinian National Authority. Moreover, the Committee owns a permanent headquarters which is included within the Joint Services Council for Silwad but does not possess a vehicle for the collection of solid waste (Silwad Camp People's Committee, 2012). The Camp Committee provides different services to the camp residents, including:

- Road construction, pavement and rehabilitation.
- Organizing construction and licensing processes.
- Implementing projects and studies pertaining to the camp development.
- Protecting governmental property.

## History

It is said that the name Silwad was taken from combining the two words of valleys and streams; at the beginning it was known as "Sail al Wad" which means the valley's stream, however, later on, it was shortened to Silwad. The town dates back to the Roman era, and its residents originate from east-Jordanian "Al Howeitat" Arabs (Silwad Municipal Council, 2011).

Concerning Silwad Camp, it was named after the land on which it was established; in the center of Silwad town (Silwad Camp People's Committee, 2012). The camp was established in 1972 and its residents originate from Lid, Ramla, Abbasiya, Al Mughar and Jaffa, in addition to immigrants from different Palestinian villages and cities (Silwad Camp People's Committee, 2012).

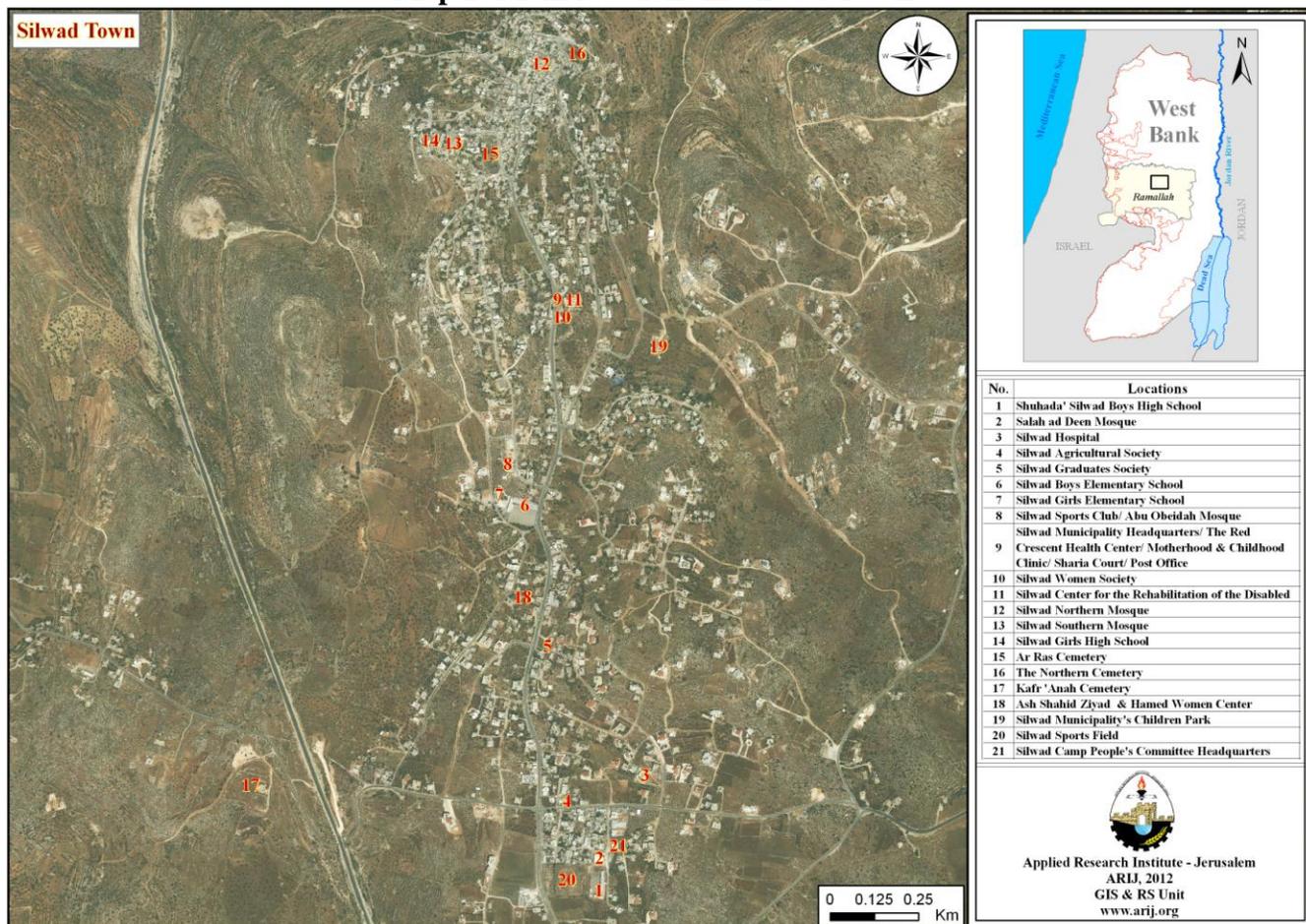
**Photo of Silwad**

## **Religious and Archaeological Sites**

In terms of religious establishments, there are four mosques in the town; the Northern Mosque, the Southern, Abi 'Obeidah and Salah ad Din Mosques. As for the archaeological sites in the town; there are few, including Khirbet Kafr 'Atah and Khirbet az Zeit which has an olive-oil press, in addition to the Bardawil tower (Silwad Municipal Council, 2011) (See map 2).

However, there is only one mosque in Silwad Camp; Silwad al Kabeer Mosque, but there have been no archeological sites discovered in the camp (Silwad Camp People's Committee, 2012).

Map 2: Main locations in Silwad Town



Source: ARIJ GIS, 2012

## Population<sup>2</sup>

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of Silwad in 2007 was 6,115; 3,090 of whom were male and 3,025 females. There were additionally 1,305 registered households living in 1,754 housing units.

## Age Groups and Gender<sup>3</sup>

The General Census of Population and Housing carried out by PCBS in 2007 showed that the distribution of age groups in Silwad was as follows: 40.6% were less than 15 years old, 54.7% between 15 - 64 years old, whilst 4% fall into the 65 years and older category. Data additionally showed that the sex ratio of males to females in the town is 102:100, meaning that males and females constitute 50.5% and 49.5 % of the population, respectively.

<sup>2</sup> These information covers Silwad town and Silwad camp.

<sup>3</sup> These information covers Silwad town and Silwad camp.

## Families

The inhabitants of Silwad town are composed of several families, mainly Hammad, Hamid and 'Ayyad (Silwad Municipal Council, 2011) while the main families in Silwad camp are Al 'Adasi, Abu Zeina, 'Al Sa'd, As Siraj, Burghal, Abu Trayya, Al Jamal, Al Helu, Al Ghurani and Bseisu (Silwad Camp People's Committee, 2012).

## Immigration

The field survey conducted by ARIJ team in 2011 has showed that around 1000 persons have left the town since the second Intifada in 2000 (Silwad Municipal Council, 2011), in addition to 4 families from Silwad camp (Silwad Camp People's Committee, 2012).

## Education<sup>4</sup>

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among population was about 6.1%, of whom 82.1% were females. Of the literate population, 12.6% could only read and write, with no formal education, 29.6% had only elementary education, 30.4% had preparatory education, 15.5% had secondary education, and 5.8% completed higher education. Table 1, shows the educational level in the town of Silwad, by sex, and educational attainment in 2007.

**Table 1: Silwad population (10 years and above) by sex and educational attainment, 2007<sup>5</sup>**

Sex	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Unknown	Total
M	51	303	735	741	341	60	77	1	16	2	1	<b>2328</b>
F	229	281	626	669	377	53	60	–	4	–	1	<b>2300</b>
<b>T</b>	<b>280</b>	<b>584</b>	<b>1361</b>	<b>1410</b>	<b>718</b>	<b>113</b>	<b>137</b>	<b>1</b>	<b>20</b>	<b>2</b>	<b>2</b>	<b>4628</b>

Source: PCBS, 2009.

With regards to the basic and secondary education institutions and schools in Silwad town and Silwad camp in the academic year 2010/2011, there are 5 schools; 4 of which are public run by the Palestinian Ministry of Higher Education (MoEHE) and one is run by UNRWA (Directorate of Education in Ramallah, 2012) (See Table 2).

<sup>4</sup> These information covers Silwad town and Silwad camp.

<sup>5</sup> These information covers Silwad town and Silwad camp.

**Table 2: The Schools in Silwad town & Silwad camp by name, stage, sex, and supervising authority, 2011/2012**

School Name	Supervising Authority	Sex
Silwad Girls Secondary School/ town	Government	Female
Shuhada' Silwad Boys Secondary School/ town	Government	Male
Silwad Girls Elementary School/ town	Government	Female
Silwad Boys Elementary School/ town	Government	Male
Silwad Girls Elementary School/ camp	UNRWA	Female
<b>Source:</b> Directorate of Education in Ramallah, 2011		

There are additionally, a total of 1,780 students, 100 teachers, and 60 classes (Directorate of Education in Ramallah, 2012). It should be noted here that the average number of students per teacher in the schools is nearly 18, whilst the average number of students per class is approximately 30.

Furthermore, there are two kindergartens in Silwad town. The total number of children across both kindergartens is 267 children. Table 3 shows the kindergartens according to their names and supervising authority.

**Table 3: The Kindergartens in Silwad town by name and supervising authority**

Kindergarten Name	No. of Children	Supervising Authority
Dar al Hanan wal Dalal Kindergarten	90	Private
Nadi Silwad Kindergarten	177	Christian Civil Society
<b>Source:</b> Directorate of Education in Ramallah, 2011		

Moreover, the educational sector in Silwad town suffers some obstacles, mainly (Silwad Municipality, 2011):

- The lack of needed classrooms for students.
- The lack of well trained teaching staff.

## Health Status

There are a few health facilities available in Silwad town, including: Silwad Governmental Health Center and Al Amal specialized clinics. There is also a governmental physician clinic in the town, three governmental specialized doctors clinics, one private specialized doctor clinic, 4 X-ray centers (2 governmental, one private and one run by an NGO), two motherhood and childhood centers (one governmental and one run by an NGO), and two medical analysis laboratories (one governmental and one run by an NGO), in addition to two governmental pharmacies and an additional private pharmacy. Also there is an ambulance in the town owned by Silwad Sports Club (Silwad Municipality, 2011).

Moreover, the health sector in Silwad town suffers some obstacles, mainly (Silwad Municipality, 2011):

- The small-size of the health center in relation to the health needs of the town population.

- The need for physicians with different specialties.

On the other hand, Silwad camp has no medical or health services available, thus patients are sent to the Red Crescent Society in Silwad town or Al Jalazun UNRWA clinic which is 10km away from the camp (Silwad Camp People’s Committee, 2012).

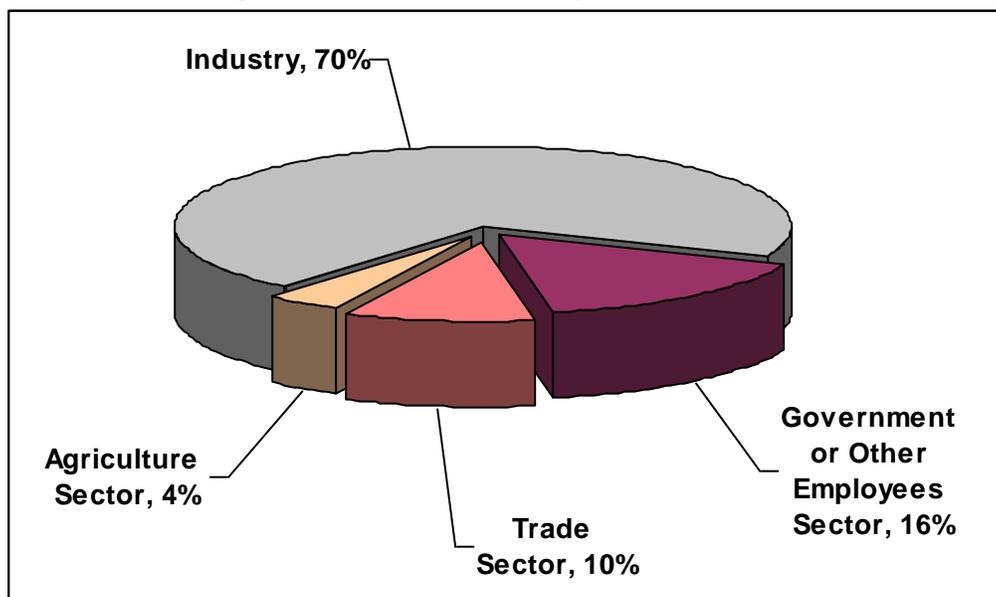
## Economic Activities

The economy in Silwad town is dependent mainly on the Industry sector which absorbs 70% of the town’s workforce (Silwad Municipality, 2011) (See Figure1).

The results of a field survey conducted by ARIJ team in 2011 for the distribution of labor by economic activity in Silwad town are as follows:

- Industry (70%)
- Government or Other Employees Sector (16%)
- Trade Sector (10%)
- Agriculture Sector (4%)

**Figure 1: Economic Activity in Silwad Town**



In terms of industrial productions and parks in Silwad town, there are 25 grocery stores, 7 stores that sell vegetables and fruits, 1 bakery, 4 butchers, 42 different services stores, 17 different professional workshops (blacksmith, carpentry, etc.), a stone cutter, one olive oil-press and one agricultural nursery, in addition to restaurants, petrol stations, turnery stores and a brick factory (Silwad Municipal Council, 2011).

The unemployment rate in Silwad reached (in 2011) about 16% and it was found that the most vulnerable social groups in the town, as a result of Israeli actions, are (Silwad Municipal Council, 2011):

1. Workers in the agricultural sector.
2. Former workers in Israel.
3. Workers in industry.

Nevertheless, the economy in Silwad camp is also dependent mainly on the industry sector which absorbs 50% of the camp workforce (Silwad Camp People's Committee, 2012). And the results of the field survey conducted by ARIJ team in 2012 for the distribution of labor by economic activity in Silwad camp are as follows:

- Industry (50%)
- Government or Other Employees Sector (23%)
- Trade Sector (20%)
- Israeli labor market (7%)

In terms of industrial productions and parks in Silwad camp, there are 2 grocery stores, 1 store that sell vegetables and fruits, 1 butcher, 1 services store, and 2 different professional workshops (blacksmith and carpentry) (Silwad Camp People's Committee, 2012).

The unemployment rate in Silwad camp has reached (in 2012) about 10% and it was found that the most vulnerable social groups in the camp, as a result of Israeli actions, are (Silwad Camp People's Committee, 2012):

1. Workers in industry.
2. Workers in the trade sector.

## Labor Force<sup>6</sup>

According to the PCBS Population, Housing and Establishment Census-2007, 33.9% of Silwad population was economically active, of whom 84.7% were employed, and 66% of whom were not economically active, 45.5% of whom were students, and 37.8% of whom were housekeepers (See table 4).

**Table 4: Silwad town & Silwad camp's population (10 years and above) by sex and employment status-2007<sup>7</sup>**

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	1,184	170	30	<b>1,384</b>	687	—	177	22	56	<b>942</b>	2	<b>2,328</b>
F	144	7	33	<b>184</b>	703	1,154	173	4	80	<b>2,114</b>	2	<b>2,300</b>
<b>T</b>	<b>1,328</b>	<b>177</b>	<b>63</b>	<b>1,568</b>	<b>1,390</b>	<b>1,154</b>	<b>350</b>	<b>26</b>	<b>136</b>	<b>3,056</b>	<b>4</b>	<b>4,628</b>

Source: PCBS, 2009.

<sup>6</sup> These information covers Silwad town and Silwad camp.

<sup>7</sup> These information covers Silwad town and Silwad camp.

## Agricultural Sector<sup>8</sup>

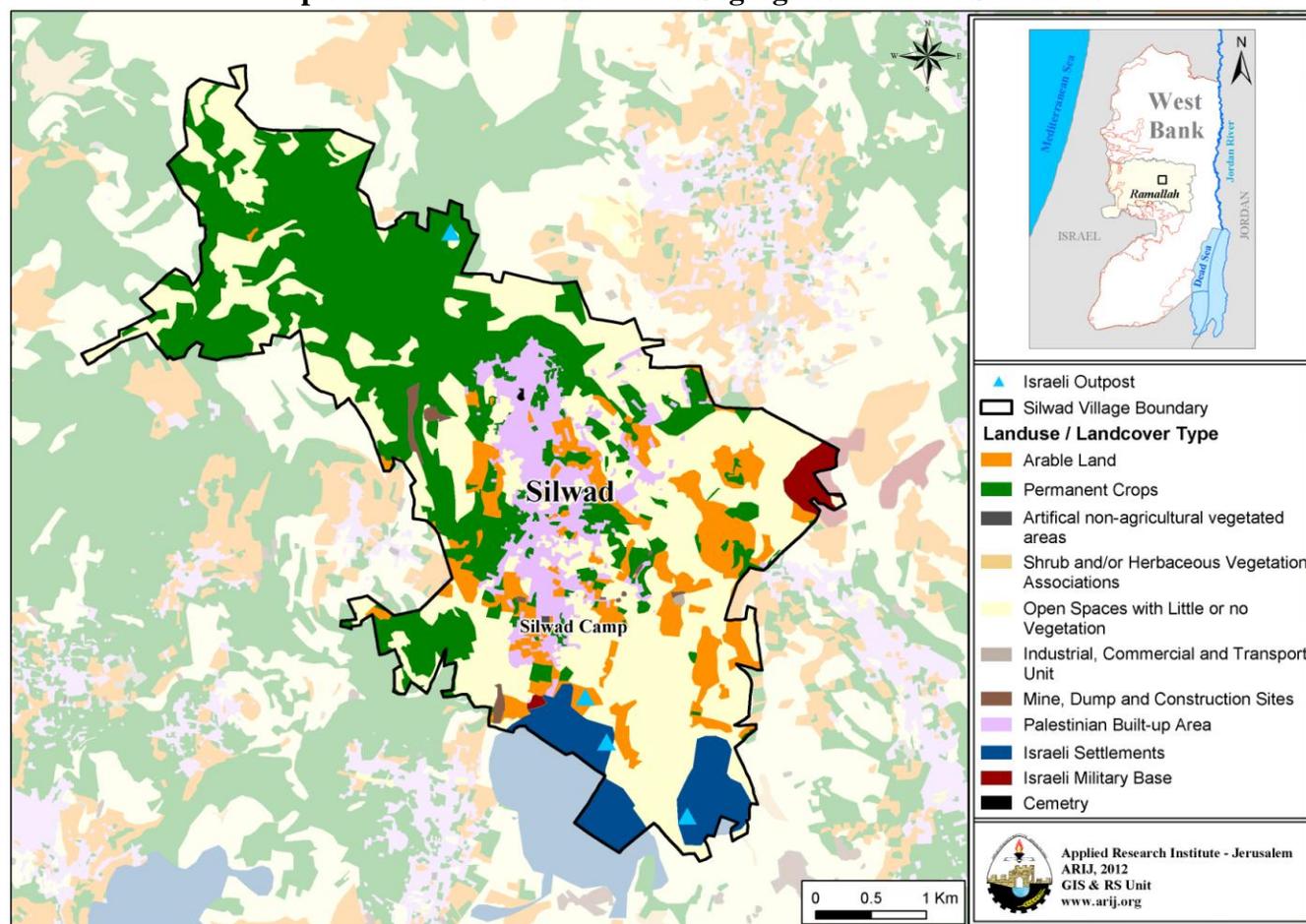
Silwad lies on a total area of about 18,514 dunams of which 8,412 dunams are considered arable land and 1,496 dunams are residential land (See table 5 and map 3).

**Table 5: Land use and land cover in Silwad (area in dunam)**

Total Area	Built up Area	Agricultural area (8,412)				Inland water	Forests	Open Spaces	Area of Industrial, Commercial & Transport Unit	Area of Settlements, Military Bases & Wall Zone
		Permanent Crops	Green-houses	Range-land	Arable land					
18,514	1,496	6,516	0	1	1,895	0	0	7,295	123	1,187

Source: ARIJ – GIS Unit, 2012.

**Map 3: Land use/land cover and Segregation Wall in Silwad Town**



Source: ARIJ GIS, 2012

<sup>8</sup> These information covers Silwad town and Silwad camp.

Table 6 shows the different types of rain-fed and irrigated open-cultivated vegetables in Silwad town. The most commonly cultivated crop within this area is tomato.

**Table 6: Total area of rain-fed and irrigated open cultivated vegetables in Silwad 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.
40	8	0	0	20	0	6	0	5	0	<b>71</b>	<b>8</b>

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture - Ramallah, 2009

Table 7 shows the different types of fruit trees planted in the area. Silwad town is known for the cultivation of olive trees; there being about 3,880 dunams of land cultivated with olive crops.

**Table 7: Total area of fruit and olive trees in Silwad 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.
3,880	0	0	0	37	0	21	0	65	0	440	0	<b>4,443</b>	<b>0</b>

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture - Ramallah, 2009

As for the field crops and forage in Silwad town, cereals (in particular, wheat) are the most cultivated; covering an area of about 270 dunams (See table 8).

**Table 8: Total area of field crops in Silwad town (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
270	0	17	0	45	0	4	0	45	0	0	0	3	0	<b>384</b>	<b>0</b>

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 conducted by ARIJ team shows that 2% of the residents in Silwad town rear and keep domestic animals such as sheep, goats and others (Silwad Municipal Council, 2011), and also 2% of Silwad camp rear and keep domestic animals such as sheep and goats (Silwad Camp People's Committee, 2012) (See Table 9).

**Table 9: Livestock in Silwad town<sup>9</sup>**

Cows*	Sheep	Goats	Camels	Horses	Donkeys	Mules	Broilers	Layers	Bee Hives
0	285	538	0	0	0	0	28,400	0	44

\*Including cows, bull calves, heifer calves and bulls

*Source: Palestinian Ministry of Agriculture - Ramallah, 2009*

There are about 100 kilometers of agricultural roads in Silwad town; divided as follows (Silwad Municipal Council, 2011):

**Table 10: Agricultural Roads in Silwad Town and their Lengths**

Suitability of Agricultural Roads	Length (km)
For vehicles	20
For tractors and agricultural machinery only	20
For animals only	30
Unsuitable	30

*Source: Silwad Municipal Council, 2011*

The agricultural sector in Silwad town suffers some problems and obstacles, mainly (Silwad Municipal Council, 2011):

- Confiscation of land.
- Hard access to agricultural land.
- Lack of labor forces
- Lack of water sources.
- Lack of capital.
- Prevention of cultivation in area C.
- Residents complaining of animals being kept within the town boundaries.
- Lack of protection for farmers.
- High costs of feed.

Currently, there are 3km of agricultural roads in Silwad camp; 1km of which is used for vehicles and 2km are used for tractors and agricultural machinery only (Silwad Camp People's Committee, 2012).

## Institutions and Services

Silwad town has few governmental institutions, including a post office, a post division and a Sharia court, in addition to a number of local institutions and associations that provide services to various sectors of society: children, youth, and women. The services are in the areas of culture, sports and others, including (Silwad Municipal Council, 2011):

- **Silwad Municipality:** Founded in 1964 by the Ministry of local government. Its goal is to take care of all the issues in the city and providing all kinds of services to its population.

<sup>9</sup> These information covers Silwad town and Silwad camp.

- **Silwad Sports Club:** Founded in 1967 by the town's youth and is currently registered in the Ministry of Youth & Sports. The club is interested in all sports and cultural activities for young people in the town.
- **Silwad Agricultural Society:** Founded in 1987 by the town's residents. Its focus is agricultural matters.
- **Ziyad Hamid Club.**
- **Silwad Women Society.**
- **The Rural Women Association.**
- **Rehabilitation of the Disabled Center.**

On the other hand, there are no governmental institutions in Silwad camp and only one local institution to provide different services to its residents, which is the aforementioned People's Committee established by the Refugees Affairs Department (Silwad Camp People's Committee, 2012).

## Infrastructure and Natural Resources

### Electricity and Telecommunication Services:

Silwad town has been connected to a public electricity network since 1985; 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 (Silwad Municipal Council, 2011). However, Silwad camp has been connected to a public electricity network since 1968; served by Jerusalem Electricity Company. Approximately 98% of the housing units in the town are connected to the network. The camp suffers some problems concerning the electricity sector, mainly the weak electrical current in some residential neighborhoods and the electricity network being very old and worn out (Silwad Camp People's Committee, 2012).

Furthermore, Silwad town is connected to a telecommunication network and approximately 90% of the housing units within the town boundaries are connected to phone lines (Silwad Municipal Council, 2011). Also, 94% of Silwad camp housing units are connected to a telecommunication network (Silwad Camp People's Committee, 2012).

### Transportation Services:

Public taxis, buses and illegal/unlicensed cars are considered the main means of transportation in Silwad town; with about 24 public taxis, 6 cars and 2 buses available. As for the road network in the town; there are a total of 42km of main roads, only 20km of which are paved and in good condition, 12km are paved but in poor condition and 10km are unpaved roads (Silwad Municipal Council, 2011).

Moreover, there are two public buses in Silwad camp serving the residents; however, travelers face some obstacles, including the unqualified roads and the existence of earth mounds and military checkpoints (Silwad Camp People's Committee, 2012). As for the road network; there is 1km of paved in good condition main roads along with 2km of paved in good condition sub roads (Silwad Camp People's Committee, 2012).

### Water Resources in Silwad Town:

The Jerusalem Water Company provides the town with water through a network that has been constructed since 1968. This network supplies water to almost all housing units in the town (Silwad Municipal Council, 2011). The quantity of water supplied to the town in 2010 has reached approximately 156,689 m<sup>3</sup>/ year (Jerusalem Water Authority, 2011), and thus the amount of water consumed per person is estimated to be 74.6 liters/capita/day. Nevertheless, residents of Silwad do not really consume this amount of water due to the water loss from transfer of water and distribution through the network from the main company provider to housing units, and it reaches to 26.5 %, and thus the average of water consumption per capita is 54.8 liters/capita/day (Jerusalem Water Authority, 2011). This average is less than the recommended amount proposed by the World Health Organization (WHO) which is 100 liter/capita/day. However, household rainwater harvesting cisterns are considered the alternative resource of water for the public network. In the town there are around 100 cisterns which are still not sufficient to meet the residents needs (Silwad Municipal Council, 2011).

To determine water costs, the water authority has adopted an upward rate where the price of water increases with increasing consumption. Table 12 shows the price of water by category of consumption.

**Table 12: Water tariffs of Jerusalem Water Authority adopted since 01.01.2012**

Consumption Category (m <sup>3</sup> )	Domestic (NIS/m <sup>3</sup> )	Industrial (NIS/m <sup>3</sup> )	Tourist (NIS/m <sup>3</sup> )	Commercial (NIS/m <sup>3</sup> )	Public Institutions (NIS/m <sup>3</sup> )
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 Silwad Town:

Silwad town lacks a public sewerage network with most of the town residents using cesspits and endocrines as their main means of waste-water disposal (Silwad Municipal Council, 2011).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day is approximately 252.4 cubic meters, or 92,133 cubic meters annually. At the individual level in the town, it is estimated that the per capita wastewater generation is approximately 38.4 liters per day (ARIJ WERU, 2012). The wastewater collected by cesspits is discharged by wastewater tankers directly to open areas or nearby valleys without 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.

### **Solid Waste Management in Silwad Town:**

Silwad 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 Silwad. 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 205 NIS/year. However, the collected fees are not considered sufficient for a good management of solid waste; only 40% of these fees are collected from the citizens (Silwad Municipal Council, 2011).

Most of the population in Silwad benefit from the solid waste services, where waste is collected from households, institutions, shops, and public squares in plastic bags and then transferred to 138 containers; each with a 1 cup capacity, spread throughout the neighborhoods. Silwad Municipal Council collects the solid waste from the containers every day and transports it through a waste vehicle to the town's dumping site, 100 m from Silwad. The common method for solid waste treatment in the dumping site is by burial (Silwad Municipal Council, 2011).

The daily per capita rate of solid waste production in Silwad town is 1.05kg. Thus the estimated amount of solid waste produced per day from the Silwad residents is nearly 6 tons, or 2,206 tons per year (ARIJ WERU, 2012).

### **Environmental Conditions in Silwad Town**

Like other villages and towns in the governorate, in Silwad 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 in several neighborhoods of the town for several reasons:
  - (1) Israeli control over Palestinian water resources. Consequently, the Jerusalem Water Authority purchases water from the Israeli company of Mekorot in order to satisfy residents' needs.
  - (2) 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 in Silwad town residents are forced to use unhygienic cesspits and endocrines 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, as the 2 are mixed and thus the groundwater becomes unsuitable for drinking. Most cesspits are built without lining, allowing wastewater to enter into the ground.

The reason they 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 a central sanitary landfill to serve in Silwad town 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 obtaining licenses to establish such a landfill. This is 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 Silwad Camp:

The water company in Jerusalem provides the camp with water through a water network that has been constructed since 1985. This network supplies water to almost all housing units in the camp (Silwad Camp People's Committee, 2012). The quantity of water supplied to the camp in 2010 reached approximately 10,407 m<sup>3</sup>/ year (Jerusalem Water Authority, 2011), and thus the amount of water consumed per person is estimated to be 79 liters/capita/day. Nevertheless, residents of Silwad do not really consume this amount of water due to the water loss from transfer of water and distribution through the network from the main company provider to housing units, and it reaches to 26.5 %, and thus the average of water consumption per capita is 58 liters/capita/day (Jerusalem Water Authority, 2011). This average is less than the recommended amount proposed by the World Health Organization (WHO) which is 100 liter/capita/day.

To regulate water costs, the water authority has adopted an upward rate where the price of water increases with increasing consumption. Table 12 shows the price of water by category of consumption.

**Table 12: Water tariffs of Jerusalem Water Authority adopted since 01.01.2012**

Consumption Category (m <sup>3</sup> )	Domestic (NIS/m <sup>3</sup> )	Industrial (NIS/m <sup>3</sup> )	Tourist (NIS/m <sup>3</sup> )	Commercial (NIS/m <sup>3</sup> )	Public Institutions (NIS/m <sup>3</sup> )
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 Silwad Camp:**

Silwad camp lacks a public sewerage network with most of the camp residents using cesspits as their main means of waste-water disposal (Silwad Camp People's Committee, 2012).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day, is approximately 17 cubic meters, or 6,119 cubic meters annually. At the individual level in the camp, it is estimated that the per capita wastewater generation is approximately 41 liters per day (ARIJ WERU, 2012). The wastewater collected by cesspits is discharged by wastewater tankers directly to open areas or nearby valleys without 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.

### **Solid Waste Management in Silwad Camp:**

Silwad 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 Silwad. 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 300 NIS/year. However, the collected fees are not considered sufficient for a good management of solid waste; only 40% of these fees are collected from the citizens (Silwad Camp People's Committee, 2012).

Most of the population in Silwad benefit from the solid waste services, where waste is collected from households, institutions, shops, and public squares in plastic bags. Silwad Municipal Council collects the solid waste from the containers twice a week and transports it through a waste vehicle to Silwad town dumping site. The common method for solid waste treatment in the dumping site is by burning the waste (Silwad Camp People's Committee, 2012).

The daily per capita rate of solid waste production in Silwad camp is 0.7kg. Thus the estimated amount of solid waste produced per day from the Silwad residents is nearly 0.3 ton, or 92 tons per year (ARIJ WERU, 2012).

### **Environmental Conditions in Silwad Camp**

Like other camps, villages and towns in the governorate, Silwad camp 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 in several neighborhoods of the camp for several reasons:
  - (3) Israeli control over Palestinian water resources. Consequently, the Jerusalem Water Authority purchases water from the Israeli company of Mekorot in order to satisfy residents' needs.

- (4) High rate of water losses, due to the age of the network and its need of rehabilitation and renovation.

### **Wastewater Management**

- The absence of a public sewage network means that in Silwad camp residents are forced to use unhygienic cesspits 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 camp. This wastewater also contaminates the groundwater, as the 2 are mixed thus the groundwater becomes unsuitable for drinking. This happens because most cesspits are built without lining, allowing wastewater to enter into the ground. The cesspits are built in order 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 Silwad camp and the other neighboring communities in the governorate is due mainly to the obstacles created by the Israeli authorities for local and national institutions to obtain licenses to establish such a landfill. These licenses are needed 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

## **Impact of Israeli Occupation**

### **Geopolitical status in Silwad Town & Camp**

According to the Oslo II Interim Agreement between the Palestinian Liberation Organization (PLO) and Israel, signed on 28<sup>th</sup> September 1995 Silwad town (including Silwad Camp) was divided into politically classified areas “A”, “B” and “C”. Approximately 317 dunums (1.7% of the town’s total area) are assigned as area A where the Palestinian National Authority (PNA) holds all responsibilities for internal security and Public order, whilst 6,981 dunums (37.7% of the town’s total area) are classified as area B where the PNA has a complete control over civil matters and Israel continues to have overriding responsibility for security. Area B currently constitutes most of the inhabited Palestinian areas, including municipalities, towns and some refugee camps. It is noted that the entirety of the town population resides in Area B. The rest of the town’s range, constituting 11,216 dunums (60.6% of the total area), is classified as Area C, where Israel retains full control over security and administration related to the territory. In area C Palestinian building and land management is prohibited unless through consent or authorization by the Israeli Civil Administration. Most of the lands lying within area C are classified agricultural areas, open spaces and Israeli settlements (table 13).

**Table 13: The Geopolitical Divisions of Silwad Town according to the Oslo II Interim Agreement**

Area	Area in dunams	Percent of Total town area
Area A	317	1.7
Area B	6981	37.7
Area C	11216	60.6
Nature Reserve	0	0
<b>Total</b>	<b>18514</b>	<b>100</b>

*Source: Source: ARIJ-GIS, 2011*

## Silwad Town and the Israeli Occupation

Silwad town has been subjected to numerous Israeli confiscations for the benefit of the various Israeli objectives, represented in the construction of Israeli settlements, military bases, outposts and Israeli bypass roads on the town territories, in addition to the establishment of the Israeli barriers. That which follows is a breakdown of the Israeli confiscations relating to Silwad town territories:

The Israeli Occupation Forces confiscated 199 dunums in Silwad to establish an Israeli military base on the town's eastern located lands, thus separating it from Deir Jarir and Kafr Malik villages. Additional lands have further been confiscated (approx. 988 dunums) in Silwad to build Ofra Israeli settlement. The major part of this settlement was established on the lands of 'Ein Yabrud neighboring village. Today, the settlement is inhabited by more than 3,000 Israeli settlers (table 14).

**Table 14: Israeli settlements established on the lands of Sliwad town**

Settlement Name	Establishment Date	Area of lands confiscated from Silwad	Settlement's Population 2009
Ofra	1975	988	3183
<b>Total</b>		<b>988</b>	<b>3183</b>
<b>Source: The Geo-informatics Department – ARIJ 2011</b>			

On 11<sup>th</sup> October 2012, 'Haaretz' Israeli daily newspaper reported settlers' robbery of soil from Palestinian lands located next to the settlements in the West Bank. The article claimed that soil is being stolen from at least ten sites in the occupied West Bank for construction work; to cover the necessary infrastructure of the settlements, as to develop structures for houses without paying any costs. It was further noted that this is being done under the knowledge of the Israeli authorities, which takes no action to prevent such instances of theft. For example, one of the settlers living in Ofra built on Silwad town lands used a tractor and truck to steal soil from Silwad town and the nearby village of Deir Dibwan. One of motives that encouraged settlers to carry put such thefts is the security fence built between Silwad town and Ofra settlement, thus isolating part of the town and annexing it to the settlement and providing no wt way for Palestinians to freely access their lands.

Furthermore, the Israeli Government has confiscated additional lands to open several bypass roads including Israeli bypass road numbers 60 and 465 in order to connect Israeli settlements with one another. 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.

Following the outbreak of the second Palestinian Intifada in September 2000, the IOF constructed a number of military checkpoints within the West Bank. Several earth mound barriers were constructed on town road entrances, thus aiming to prevent Palestinians from using bypass road 60. In addition, Israelis have established a military observation tower on bypass road 60 near to the town. Furthermore, occupation forces established an iron gate on the road linking Silwad and Yabrud village, which is currently open to Palestinians, despite being closed during the Intifada and times of political escalations. It can be mentioned that bypass road 60 separated the eastern and western sides of Ramallah Governorate from one another. Occupation forces further established a tunnels passing under road 60 to be used by Palestinians between Ramallah's eastern and western villages. An example of such is the tunnel linking Silwad and Yabrud localities which passes under bypass road 60. Such Israeli barriers aim to restrict the movement of Palestinians in this town in particular as well as neighboring villages, in addition to the occupation allegation of protecting settlers living close to the town.

Silwad is one of the Palestinian towns that has had its lands forcibly seized for the establishment of 4 outposts, named as: "Amona", "Ofra East", "Ofra North East" and "British Police Station" outposts. One should note that during the past two decades, Israel has built a total 232 outposts in the West Bank. These outposts are considered the nucleus for the development of new settlements, are typically composed of mobile caravans which are located on lands stolen by settlers and represent a contiguity of a mother settlement that is nearby. It is further noted that the epidemic of Israeli outposts started with a "Sharonian" call for Jewish settlers to take control over Palestinian hilltops to prevent transferring them to Palestinians in negotiations. Although the successive Israeli governments haven't legalized this phenomenon, they have managed to find both security and logistical cover to justify the act of outpost creation, their existence and continuity. After 2001 the Prime Minister of the time, Ariel Sharon, unleashed the expansion of outposts which has led to a significant increase in the number of outposts within Palestinian areas. In addition, Israeli Occupying Forces (IOF) helped the Israeli settlers to move and settle in those outposts, in addition to protecting and providing them with the necessary infrastructure to guarantee their continued existence.

## **Silwad Refugee Camp**

Silwad refugee camp is of a small size and located within Silwad town territories, in the greater region of Ramallah and Al Bireh Governorate. The camp was established in 1972 on land set aside for the military training purposes of the Jordanian army. The camp is coordinated by people's committee which is responsible for the supervision of all services and administrative issues. According to data collected during 2007 by the PCBS, the camp hosts 382 inhabitants; most of whom are refugees from camps within the Gaza Strip who moved to reside in the West Bank and originally descend from Palestinian villages and cities within the occupied territories of 1948, such as; Al Ramla, Al Lid, Jaffa and others. The total land area of the camp is approximately 45 dunums (0.045 km<sup>2</sup>).

Further according to the Oslo II Interim Agreement, all land of Silwad camp located within Silwad town was classified into Area B, where the Palestinian National Authority (PNA) has a complete control over civil matters but Israel continues to have overriding responsibility for security.

One of the major problems faced by the camp is it not receiving official recognition from UNRWA due to the fact that it was not founded by UNRWA. However, the Palestinian National Authority recognizes this camp as a local body in the Department of Refugee Affairs in the Palestinian Liberation Organization (PLO).

In addition to the displacement of Palestinian families from their lands in 1948 coupled with the difficult humanitarian situation represented by the high poverty rates unemployment, overpopulation and deterioration of the environmental situation, residents of the camp have been subject to further problems as a result of Israeli occupation. Silwad camp has faced difficulties resulting from closures and military checkpoints, settlements, military camps and bypass roads that surround the town from all sides. The Israeli settlement 'Ofra' is located just 700 meters south of the camp whilst Israeli bypass road 60 is located 500 meters to the camp's western side. Silwad camp, as well as other Palestinian camps and localities, is oft exposed to Israeli military attacks and arrests of Palestinian citizens.

## Development Plans and Projects

### Implemented Projects

Silwad Municipal Council and Silwad Camp People's Committee have implemented several development projects in Silwad during the last five years, as shown in table 15.

**Table 15: Implemented Development Plans and Projects (2011)**

In Silwad Town			
Name of the Project	Type	Year	Donor
Construction of Silwad Girls Elementary School	Educational	2007	A Citizen's Donation & Silwad Municipal Council
Construction of the Center for People with Special Needs	Public Services	2007 - 2008	The Citizens' Donations & Silwad Municipal Council
Pavement of internal roads	Infrastructure	2007	Islamic Bank & Town Citizens
Water line project	Infrastructure	2007	Silwad Municipal Council & the Palestinian Water Authority
Establishing a public garden/ two phases	Public Services	2009/ 2011	Silwad Municipal Council, the Citizens Donations, The National Bank & the Municipal Fund
Water line project	Infrastructure	2010	Ministry of Finance
Pavement of internal roads	Infrastructure	2010	Ministry of Finance
Construction of a public activity hall for Silwad Girls Secondary School	Educational	2011	Ministry of Finance
Extending the public electricity network's lines	Infrastructure	2007, 2008, 2009, 2010 & 2011	Silwad Municipal Council & the Electricity Company

In Silwad Camp			
Constructing a public hall	Public Services	2011	Silwad Camp People's Committee
Source: Silwad Municipal Council, 2011 & Silwad Camp People's Committee, 2012			

## Proposed Projects

Silwad Municipal Council and Silwad Camp People's Committee, 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 Silwad town. The projects are as follows, in order of priority, from the viewpoint of the participants in the workshop:

1. Constructing domestic and agricultural cisterns (1,000 cisterns).
2. Establishing an industrial and vocational zone.
3. Establishing a wastewater treatment unit.
4. Providing a new waste vehicle.
5. Providing support to the agricultural sector (agricultural equipments).
6. Constructing and paving agricultural roads.
7. Rehabilitating the water and electricity networks.
8. Assisting and supporting small domestic projects.
9. Assisting university students.
10. Holding training sessions to raise health awareness.
11. Creating institutions to help implementing the law.
12. Raising the level of awareness among citizens.
13. Reducing pollution.
14. Reducing taxes imposed on cars.

## Locality Development Priorities and Needs

Silwad town and Silwad camp suffer from a significant shortage of infrastructure and services. Tables 16 & 17 show the development priorities and needs in the town and camp respectively, according to the Municipality Council & Camp people's Committee's perspectives.

**Table 16: Development Priorities and Needs in Silwad Town**

No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
<b>Infrastructural Needs</b>					
1	Opening and Pavement of Roads	*			25km*
2	Rehabilitation of Old Water Networks			*	
3	Extending the Water Network to Cover New Built up Areas	*			4km
4	Construction of New Water Networks			*	
5	Rehabilitation/ Construction of New Wells or Springs	*			5 springs
6	Construction of Water Reservoirs	*			2000 cubic meters
7	Construction of a Sewage Disposal Network	*			15km
8	Construction of a New Electricity Network	*			8km
9	Providing Containers for Solid Waste Collection			*	
10	Providing Vehicles for Collecting Solid Waste			*	
11	Providing a Sanitary Landfill			*	
<b>Health Needs</b>					
1	Building of New Clinics or Health Care Centres	*			1 health clinic
2	Rehabilitation of Old Clinics or Health Care Centres	*			1 health clinic
3	Purchasing of Medical Equipment and Tools	*			
<b>Educational Needs</b>					
1	Building of New Schools	*			
2	Rehabilitation of Old Schools	*			males elementary school
3	Purchasing of New Equipment for Schools	*			
<b>Agriculture Needs</b>					
1	Rehabilitation of Agricultural Lands	*			1000 dunams
2	Building Rainwater Harvesting Cisterns	*			500 cisterns
3	Construction of Barracks for Livestock			*	
4	Veterinary Services			*	
5	Seeds and Hay for Animals			*	
6	Construction of New Greenhouses	*			50 greenhouses
7	Rehabilitation of Greenhouses			*	
8	Field Crops Seeds	*			
9	Plants and Agricultural Supplies	*			

\* 8km are main roads, 2km are internal roads and 15km are agricultural roads.

Source: Silwad Municipal Council, 2011

**Table 17: Development Priorities and Needs in Silwad Camp**

No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
<b>Infrastructural Needs</b>					
1	Opening and Pavement of Roads	*			0.7km*
2	Rehabilitation of Old Water Networks	*			3km
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	*			500 cubic meters
7	Construction of a Sewage Disposal Network	*			7km
8	Construction of a New Electricity Network			*	
9	Providing Containers for Solid Waste Collection	*			30 containers
10	Providing Vehicles for Collecting Solid Waste			*	
11	Providing a Sanitary Landfill		*		
<b>Health Needs</b>					
1	Building of New Clinics or Health Care Centres	*			1 health clinic
2	Rehabilitation of Old Clinics or Health Care Centres			*	
3	Purchasing of Medical Equipment and Tools			*	
<b>Educational Needs</b>					
1	Building of New Schools			*	
2	Rehabilitation of Old Schools			*	
3	Purchasing of New Equipment for Schools	*			
<b>Agriculture Needs</b>					
1	Rehabilitation of Agricultural Lands			*	
2	Building Rainwater Harvesting Cisterns	*			100 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		*		

\* 0.5km are main roads and 0.2km are internal roads.

Source: Silwad Camp People's Committee, 2012

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