# Al Maniya Village Profile



Prepared by



 $The \ Applied \ Research \ Institute-Jerusalem$ 

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# Acknowledgments

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

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 booklet is part of a series of booklets, which contain compiled information about each city, town, and village in Bethlehem Governorate. These booklets came as a result of a comprehensive study of all localities in Bethlehem Governorate, which aims at depicting the overall living conditions in the governorate and presenting developmental plans to assist in developing the livelihood of the population in the area. It was accomplished through the "Village Profiles and Azahar Needs Assessment;" the project funded by the Spanish Agency for International Cooperation for Development (AECID) and the Azahar Program.

The "Village Profiles and Azahar 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 Bethlehem Governorate with particular focus on the Azahar program objectives and activities concerning water, environment, and agriculture.

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 Bethlehem 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 <a href="http://proxy.arij.org/vprofile">http://proxy.arij.org/vprofile</a>.

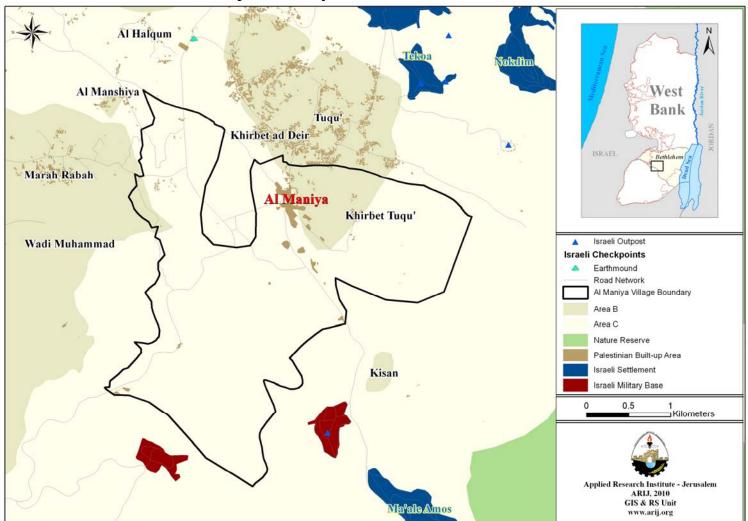
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# Al Maniya Village Profile

# **Location and Physical Characteristics**

Al Maniya is a Palestinian village in Bethlehem Governorate located 8.6km (horizontal distance) south-east of Bethlehem City. Al Maniya is bordered by Tuqu' village to the east and north, Marah Rabah village and Beit Fajjar town to the west, and Kisan and 'Arab ar Rashayida villages to the south (See map 1).



Map 1: Al Maniya location and borders

Al Maniya is located at an altitude of 760m above sea level with a mean annual rainfall of 414mm. The average annual temperature is 17° C, and the average annual humidity is about 60.4 percent (ARIJ GIS, 2009).

#### **Palestinian Localities Study**

Since 1996, Al Maniya has been governed by a village council which is currently administrated by seven members appointed by the Palestinian Authority. The village council has a permanent headquarters which it rents.

It is the responsibility of the village council to provide a number of services to the residents of Al Maniya, including:

- 1. Infrastructure services such as water and electricity.
- 2. Protection of religious and archaeological sites.
- 3. Implementation of projects and case studies for the Village.

## **History**

The name Al Maniya came according to a few stories, including: the existence of an ancient Roman cave that was inhabited by a queen called Maniya. Another story says that it was called so in relation to Al Maniya Gran, a place where the residents used to harvest and collect their corps in. Al Maniya residents originate from Sa'ir town in Hebron governorate.

Al Maniya village includes another locality called Wadi Muhammad.

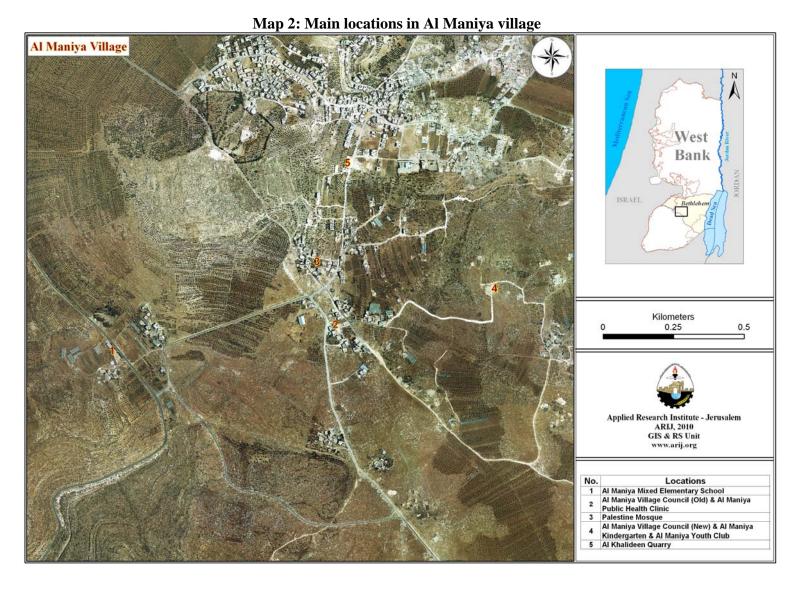




# **Religious and Archaeological Sites**

In terms of religious establishments, there is only one mosque in Al Maniya: Palestine Mosque.

As for the archaeological sites in the village; there is Tuqu' archeological mount, which contains Roman and Greek remains and can be taken advantage of as recreational and tourist area (See map 2).



## **Population**

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of Al Maniya in 2007 was 1,012; of whom 509 are males and 503 are females. There are 157 households living in 153 housing units.

### **Age Groups and Gender**

The General Census of Population and Housing carried out by PCBS in 2007 showed the distribution of age groups in Al Maniya is as follows: 47.2 percent are less than 15 years, 49.6 percent are between 15 - 64 years, and 1.3 percent are 65 years and older. Data also showed that the sex ratio of males to females in the village is 101.2:100, meaning that males constitute 50.3 percent of the population, and females constitute 49.7 percent of the population.

#### **Families**

The inhabitants of Al Maniya village are composed of several families, mainly: Al Kawazba, Al Frookh, Al Jabbareen, Ash Shalalda, and At Tarwa.

## **Immigration**

The field survey showed that one family, composed of 5 members, has left the village.

## Education

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among Al Maniya population is about 10.8 percent, of whom 72 percent are females. Of the literate population, 26.9 percent can read and write, 36 percent had elementary education, 25.9 percent had preparatory education, 9 percent had secondary education, and 1.6 percent completed higher education. Table 1, shows the educational level in the village of Al Maniya, by sex, and educational attainment in 2007.

Ta	Table 1: Al Maniya population (10 years and above) by sex and educational attainment												
S E x	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Total		
M	19	84	124	69	24	1	6	-	-	-	328		
F	49	68	79	77	27	2	-	-	-	-	304		
T	68	152	203	146	51	3	6	-	-	-	632		

Source: PCBS, 2009. Population, Housing and Establishment Census-2007, Final Results

In regards to the basic and secondary educational institutions and schools in Al Maniya in the academic year 2008/2009, there is one public mixed school in the village; Al Maniya Mixed Elementary School, run by the Palestinian Ministry of Higher Education. There are no private schools in Al Maniya. There is a total number of 320 students; 13 teachers, and 11 classes (Directorate of Education in Bethlehem, 2009).

It should be noted here that the average number of students per teacher in the school is nearly 25, while the average number of students per class is approximately 29. It is worth mentioning that the school is subjected to much harassment by the Israeli occupation forces because the school is located near a settlement and a military checkpoint (Al Maniya Village Council, 2010).

Due to the lack of kindergartens in the village; some citizens send their children to kindergartens in the neighboring areas, such as Tuqu' kindergarten, which is about 3km from the village (Al Maniya Village Council, 2010).

## **Health Status**

There are some health facilities available in Al Maniya village; a Government health center, which has a pediatrician and a physician's office. There is no ambulance available in the village. In emergency cases, residents of Al Maniya use Tuqu' hospitals and health centers, such as: Tuqu' charitable society, which is about 1km from the village, Tuqu' medical complex, also about 1km from the village, and Tuqu' governmental clinic, which is about 2km from the village.

Despite the existence of a health center in Al Maniya, the health sector faces several obstacles, including:

- 1. The absence of a pharmacy.
- 2. The absence of an ambulance.
- 3. The absence of a dentist in the village.

## **Economic Activities**

The economy in Al Maniya is dependent on several economic sectors, mainly: the agricultural sector, which absorbs 36 percent of the village workforce (See Figure 1).

The results of a field survey for the distribution of labor by economic activity in Al Maniya are the following:

- Agriculture Sector (36%)
- Service Sector (18%)
- Israeli Labor Market (18%)
- Trade Sector (15%)
- Government or Other Employees Sector (9%)
- Industry (4%)

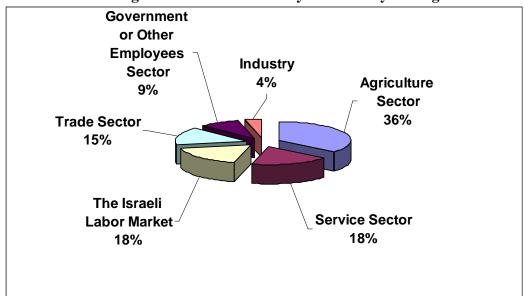


Figure 1: Economic Activity in Al Maniya Village

There are some economic and industrial activities in Al Maniya, mainly: whole and retail trade, one stone and one marble quarry, one workshop (blacksmith, carpentry, and aluminum), 2 butcheries, one grocery, and 4 grocery stores.

As a result of the Israeli occupation and restrictions, the economic status of the population has severely declined, as many citizens have lost their jobs and have become unemployed, thus forcing them to work in the service sector and agricultural activities, as a last resort for obtaining a minimum income.

The unemployment rate in Al Maniya has reached about 20 percent. It was found that the most vulnerable social groups in the town, as a result of Israeli actions, are:

- 1. Former workers in Israel.
- 2. Workers in trade sector.
- 3. Workers in agricultural sector.
- 4. Workers in the service sector.

#### **Labor Force**

According to the PCBS Population, Housing and Establishment Census-2007, 26.4 percent of Al Maniya population was economically active, of whom 74.9 percent were employed, 73.1 percent were not economically active, 44.6 percent were students, and 40.9 percent were housekeepers (See table 2).

Ta	ble 2: Al Ma	aniya populatio	n (10 years and	above) by	sex and en	ployment s	status-200	7			
S E X		Economica	lly Active			1	Not Econo	mically Active			Total
	Employed Unemployed (Never worked) Unemployed (Never worked) Unemployed Students House-keeping Unable to work Not working & Not looking for work									Total	
M	124	31	10	165	103	1	31	-	26	161	328
F	1	•	8	-	2	301	304				
T										632	

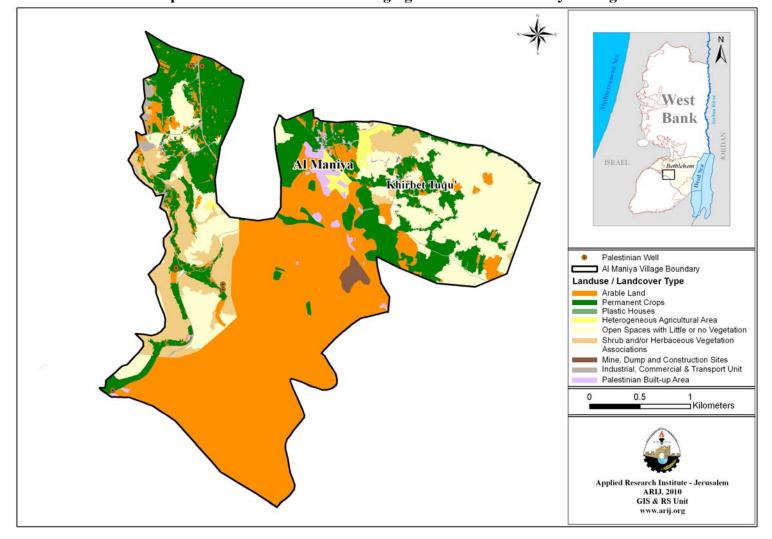
Source: PCBS, March 2009. Population, Housing and Establishment Census-2007, Final Results

# **Agricultural Sector**

Al Maniya lies on a total area of about 8,908 dunums of which 8,598 dunums are considered arable land, and 124 dunums are residential land (See table 3 and map 3).

Table 3	Table 3: Land Use in Al Maniya village (dunum)												
Total	Built			Arable Land (8,598)			Area of Industrial,	Area of Settlements					
Total Area	up Area	Seasonal Crops	Permanent Crops	Greenhouses	Forests	Open Spaces and Rangelands	Commercial & Transport	and Military Bases					
8,908	124	4,183	1,847	9	0	2,559	186	0					

Source: GIS unit – ARIJ, 2008



Map 3: Land use/land cover and Segregation Wall in Al Maniya Village

Agricultural production in Al Maniya depends mostly on rainwater. As for irrigated fields, they depend on the public water network

Table 4 shows the different types of rain-fed and irrigated open-cultivated vegetables in Al Maniya. The most common crop cultivated within this area is tomato.

	Table 4: Total area of rain-fed and irrigated open cultivated vegetables in Al Maniya village (dunum)											
	uity ables	Leafy vegetable		Green legumes		Bulbs		Other vegetables		Total area		
RF	Irr.	RF	Irr.	RF Irr.		RF	Irr.	RF	Irr.	RF	Irr.	
3	3 7.5 0 7.5 0 1 0 1.5 0 3 3 20.5											

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

There are also 9 dunums of land on which there are greenhouses planted with different vegetables, mainly: cucumber.

Table 5 shows the different types of fruit trees planted in the area.

Table	Table 5: Total area of fruit and olive trees in Al Maniya Village (dunum)												
Olives Citrus				Stone	; <b>-</b>	Pome Nuts Other			Other Tota		Total a	tal area	
			fruits		fruits fruits		fruits						
Rf	Rf Irr. Rf Irr.		Irr.	Rf	Irr.	Rf	Rf Irr. Rf Irr. Rf Irr		Irr.	Rf	Irr.		
200	200 0 0 0		0	100	0	0	0	20	0	0	0	320	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

As for the field crops and forage in Al Maniya, cereals, in particular wheat and barley are the most cultivated crops covering an area of about 160 dunums, while dry legumes, such as chickpeas and lentil are the second most cultivated crops (See table 6).

Table	Table 6: Total area of field crops in Al Maniya village (dunum)														
Cereals Bulbs 1				Dry		Oil		Forage Stimula		ating	Other		Total		
				legumes		crops		crops		crops		crops		area	
Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr	Rf	Irr
160	160 0 0 0 14 0				0	0	0	16	0	2	0	0	0	192	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

The field survey shows that most of the residents in Al Maniya are rearing and keeping domestic animals such as sheep and goats (See Table 7).

Table 7	Table 7: Livestock in Al Maniya village											
Cows*	Cows*   Sheep   Goats   Camels   Horses   Donkeys   Mules   Broilers   Layers   Bee											
								,	Hives			
0	854	490	0	3	17	0	0	0	0			

\*Including cows, bull calves, heifer calves and bulls Source: Palestinian Ministry of Agriculture, 2007

There are about 2 kilometers of agricultural roads in the village suitable for vehicles.

## **Institutions and Services**

Al Maniya has only a few local institutions and associations; there is a division of postal services, in addition to a youth sport club and a village council:

- Al Maniya Village Council: Founded in 1996 by the Ministry of Local Government with the goal of taking care of all the issues in the village and providing all kinds of services to its population.
- Al Maniya Youth Club: Founded in 1995 by the Ministry of Youth and Sport, with the interest of all youth and sport activities in the village.

## Infrastructure and Natural Resources

## **Electricity and Telecommunication Services:**

Al Maniya has been connected to a public electricity network since 1983; served by Jerusalem Electricity Company, which is the main source of electricity in the town. Approximately 97.4 percent of the housing units in the town are connected to the network, 1.3 percent are dependent on private generators for electricity, and 0.7 percent have no source of electricity, while the source of electricity is unknown for the remaining units (0.7%) (Central Bureau of Statistics, 2007).

Furthermore, Al Maniya is connected to a telecommunication network and approximately 0.7 percent of the housing units within the village boundaries are connected to phone lines (Central Bureau of Statistics, 2007).

#### **Transportation Services:**

Private cars are the main means of transportation in Al Maniya, however, in case of the absence of private cars the residents use Tuqu' taxis for transportation. As for the road network in the town; there are a total of 2km of main roads; of which 1.5km are paved, 0.5km are unpaved, and a total of 2.6km secondary roads; of which 0.1km are paved and 2.5km are unpaved (Al Maniya Village Council, 2010).

#### **Water Resources:**

Al Maniya is provided with water by the West Bank Water Department, through the public water network established in 1980. Approximately, 98.7 percent of the housing units are connected to the water network, 0.7 percent are dependent on tanks, while the source of water supply is unknown for the remaining units (0.7%) (Central Bureau of Statistics, 2007). The quantity of water supplied to Al Maniya in 2008 was about 20,300 cubic meters/year. The estimated rate of water supply per capita is about 60 liters/day (PWA, 2008).

Here it should be noted that any Al Maniya citizen does not in fact consume this amount of water due to water losses, which are about 39 percent. The losses happen at the main

source, major transport lines, distribution network, and at the household level (PWA, 2008), thus the rate of water consumption per capita in Al Maniya is 37 liters per day. This is a low rate compared with the minimum quantity proposed by the World Health Organization, which is 100 liters per capita per day.

Also, located in Al Maniya are 20 rainwater harvesting cisterns (Al Maniya village council, 2010).

#### **Sanitation:**

Al Maniya lacks a public sewage network; most of the population uses cesspits as a means for wastewater disposal. According to PCBS's Population and Housing Census in 2007 and PWA data, the majority of Al Maniya's housing units (98.7%) use cesspits for wastewater disposal and 0.7 percent of the housing units have no means for wastewater disposal, while the means for wastewater disposal is unknown for the remaining units (0.7%).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day is approximately 31 cubic meters, or 11,300 cubic meters annually. At the individual level in the town it is estimated that the per capita wastewater generation is approximately 30 liters per day. The wastewater collected by cesspits is discharged by wastewater 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 which poses a threat to the environment and the public health.

#### **Solid Waste Management:**

Al Maniya Village 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 Al Maniya, which is currently represented by solid waste collection and disposal. As Tuqu' municipality provides this service to Al Maniya village council. 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 which is about 15 NIS/month. However, the collected fees are not considered sufficient for a good management of solid waste.

Most of the population in Al Maniya benefits from the solid waste services, where waste is collected from households, institutions, shops, and public squares in plastic bags and then transferred to 50 containers, with a capacity of 1.1 cubic meters each, spread throughout the neighborhoods. The village council collects the solid waste from the containers two days a week and transports it to Tuqu' dumping site. The common method for solid waste treatment in the dumping site is setting waste on fire or sometimes burying it. It should be mentioned here that household waste, industrial, and medical solid waste are collected together and dumped into the same landfill, with the absence of

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any special system for separation and/or collection. The largest volume of solid waste is household waste which makes up around 45-50 percent of total capacity of solid waste.

The daily per capita rate of solid waste production in Al Maniya is 0.7kg. Thus the estimated amount of solid waste produced per day from the Al Maniya residents is nearly 708kg, or 258 tons per year. The main component of household solid waste is composed of organic materials, followed by paper and cardboard, and then by plastic, as shown in Figure 2 below.

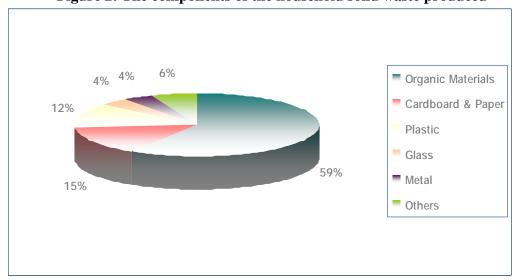


Figure 2: The components of the household solid waste produced

## **Environmental Conditions**

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

## **Water Crisis:**

Water is cut off for long periods of time in summer and winter in several neighborhoods of the village for several reasons:

- (1) Israeli domination over Palestinian water resources; accordingly supplying Palestinians communities with insufficient water quantities to cover their domestic 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, thus, the use of cesspits for the disposal of wastewater, and the discharge of wastewater in the streets, especially in winter, because the citizens can not afford the high cost of sewage tankers, causes environmental damages, health problems, and the spread of epidemics and diseases in the village. The use of cesspits pollutes the groundwater and water collected in domestic cisterns (rainwater harvesting cisterns) as the wastewater mixes with water and contaminates it and thus makes it inappropriate for human consumption. This is due to the fact that most cesspits are built without lining, which allows wastewater to enter into the ground and avoids the need to use sewage tankers from time to time. Moreover, the untreated wastewater collected from cesspits by sewage tankers is disposed of in open areas without taking into account the damage it causes to the environment and the residents' health.

## **Solid Waste Management:**

The lack of a central sanitary landfill to serve Al Maniya and the other communities in the governorate is due mainly to the obstacles created by the Israeli authorities for local and national institutions, like granting licenses to establish such a landfill, because the appropriate land is within Area C, under the Israeli control. In addition, the implementation of such projects depends on funding from donor countries. Thus, the lack of a sanitary landfill is a hazard risk for the health, a source of pollution to the groundwater and soil through the leachate produced from the solid waste, and it produces odors and distortion of the landscape. It should be noted here that a sanitary landfill is being under construction, at the time, in Al Maniya area, south of Bethlehem governorate, to serve Bethlehem and Hebron governorates

There is an absence of a system in the village and the governorate in general that separates hazardous waste from non-hazardous waste, consequently hazardous solid waste is collected with non-hazardous waste and transported to Tuqu' landfill for disposal by burial.

#### Other problems:

- The limited role of the village council, like other councils and municipalities, in providing only certain services, without considering other various aspects for development.
- The absence of the rule of law and the inadequacy of the executive branch.

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## Impact of the Israeli Occupation

According to Oslo Interim Agreement, signed in September 1995, between the Palestinian National Authority and the Israeli government, 906 dunums of Al Maniya lands (10.1 percent of the total area of the village) were classified as area B, an area in which public order falls under the Palestinian National Authority responsibility, where Israeli has full control over security matters, while the remaining area of Al Maniya lands, 8,002 dunums (89.8 percent of the total area of the village) were classified as area C (an area that is under full control of the Israeli government). It is worth mentioning here that most of the lands in area C are agricultural lands and open areas (Table 8).

Table 8: Land classification in Al Ma	Table 8: Land classification in Al Maniya according to Oslo II Agreement in 1995								
Land Classification Area (dunum) % of the Total A									
Area A	0	0							
Area B	906	10.1							
Area C	8002	89.9							
Total Area	8908	100							

Source: GIS unit -ARIJ 2009

The Israeli bypass road No. 3689 cuts through Al Maniya territories (by 2.99km in length), connects to the Israeli bypass road No. 356, then extends towards the south to Ma'ale Amos settlement and then continues to the east, towards the Dead Sea. Al Maniya village is also subjected to two mobile checkpoints that surround the village (Al Maniya village council, 2010).

# **Development Plans and Projects**

## **Implemented Projects**

Al Maniya village council has implemented several development projects in Al Maniya, during the years 2004 to 2009, as shown in Table 9.

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Table 9: Implemented Development Plans an	d Projects in Al	Maniya (2	2004-2009)
Name of the Project	Type	Year	Donor
Building a health unit in the village school	Health	2004	Japanese Government
Al Maniya service complex	Public Services	2005	German Government
Furnishing classrooms	Construction	2006	Al Maniya Village Council
Paving a section of the school playground	Construction	2009	Al Maniya Village Council
Paving 900m length of roads	Infrastructure	2009	Development Bank
Construction of domestic rainwater harvesting	Infrastructure	2009	Food and Agriculture Organization- FAO
cisterns			
Construction of a road to the service complex	Infrastructure	2009	Al Maniya Village Council
Source: Al Maniya Village Council, 2010			-

# **Proposed Projects**

Al Maniya village council, in cooperation with the civil society organizations in the village and the village 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. Restoration of the public water network and the establishment of a public water reservoir.
- 2. Establishment of agricultural and domestic cisterns.
- 3. Providing agricultural organizations and institutions to support the farmers through providing modern agricultural tools and equipment and supporting the livestock.
- 4. Rehabilitation of the electricity network.
- 5. Construction and pavements of roads.
- 6. Construction of a health center in the village.
- 7. Construction of a school in the village.
- 8. Purchasing a car for solid waste collection.
- 9. Providing street lighting in the village.
- 10. Establishment of a sewage network.
- 11. Providing transportation inside the village.

# **Locality Development Priorities and Needs**

Al Maniya suffers from a significant shortage of infrastructure and services. Table 10 shows the development priorities and needs in the village, according to the village council's point of view (Al Maniya Village Council, 2010):

Table	e 10: Development Priorities and Needs in Al Mani	ya			
No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
	Infrastruct	ural Needs			
1	Opening and Pavement of Roads	*			5km×
2	Rehabilitation of Old Water Networks	*			3km
3	Extending the Water Network to Cover New Built up Areas	*			3km
4	Construction of New Water Networks	*			3km
5	Rehabilitation/ Construction of New Wells or Springs		*		4 wells
6	Construction of Water Reservoirs	*			
7	Construction of a Sewage Disposal Network			*	
8	Construction of a New Electricity Network	*			5km
9	Providing Containers for Solid Waste Collection			*	
10	Providing Vehicles for Collecting Solid Waste	*			1
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	*			1 clinic
3	Purchasing of Medical Equipment and Tools	*			
	Education	nal Needs			
1	Building of New Schools	*			elementary &
					secondary
2	Rehabilitation of Old Schools	*			elementary &
					secondary
3	Purchasing of New Equipment for Schools	*			elementary &
					secondary
					schools
	Agricultu	re Needs			
1	Rehabilitation of Agricultural Lands		*		50 dunums
2	Building Rainwater Harvesting Cisterns	*			20 cistern
3	Construction of Barracks for Livestock		*		20 barracks
4	Veterinary Services		*		
5	Seeds and Hay for Animals	*			
6	Construction of New Greenhouses		*		5 greenhouses
7	Rehabilitation of Greenhouses		*		5 greenhouses
8	Field Crops Seeds	*			
9	Plants And Agricultural Supplies	*			

**<sup>★</sup>**1.5km is a main road, 2.5km internal road and 1km agricultural road

## References:

- Al Maniya Village Council. 2010.
- Applied Research Institute Jerusalem (ARIJ). (2008 2009). Bethlehem, Palestine: Geographic Information Systems and Remote Sensing unit Database, 2009.
- Applied Research Institute Jerusalem (ARIJ). 2009. Bethlehem, Palestine: Urbanization Unit Database, 2009.
- *Directorate of Education Bethlehem*. 2008/2009. Bethlehem, Palestine: A database of schools.
- *Palestinian Central Bureau of Statistics*. 2009. Ramallah, Palestine: General Census of Population and Housing Censuses, 2007.
- Palestinian Ministry of Agriculture (MOA). 2007/2008. Bethlehem, Palestine: Directorate of Agriculture data.
- *Palestinian Water Authority*. 2009. Ramallah, Palestine: Quantities of Water Supply in the West Bank Governorates, 2008.