

# Marah Ma'alla Village Profile



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## 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 <http://proxy.arij.org/vprofile>.

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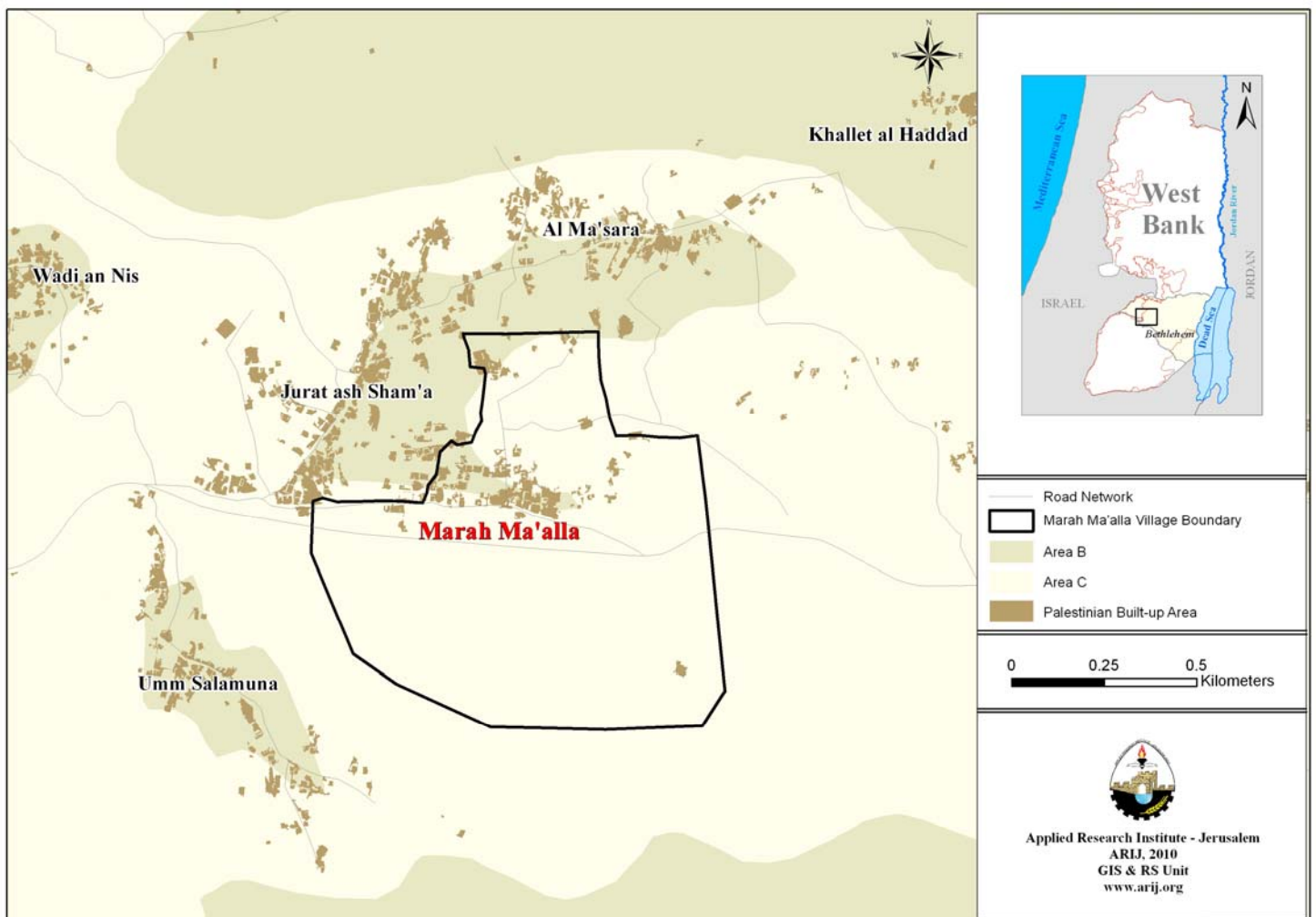
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# Marah Ma'alla Village Profile

## Location and Physical Characteristics

Marah Ma'alla is a Palestinian village in Bethlehem Governorate located 7km (horizontal distance) south of Bethlehem City. Marah Ma'alla is bordered by Tuqu' town to the east, Al Ma'sara village to the north, Jurat ash Sham'a village to the west, and Umm Salamuna village to the south (See map 1).

**Map 1: Marah Ma'alla location and borders**



Marah Ma'alla is located at an altitude of 893m above sea level with a mean annual rainfall of 593mm. The average annual temperature is 16° C, and the average annual humidity is about 61 percent (ARIJ GIS, 2009).

Since 1995, Marah Ma'alla has been governed by a village council which is currently administrated by seven members appointed by the Palestinian Authority. The village council does not own a permanent headquarters.

It is the responsibility of the village council to provide a number of services to the residents of Marah Ma'alla, including:

1. Infrastructure services such as water and electricity.
2. Solid waste collection, road construction and restoration, street cleaning, and social development services.
3. Implementation of projects and case studies for the Village.
4. Organization of the construction and licensing process.

## **History**

The name Marah Ma'alla came in relation to the vast, comfortable, and high land. Marah Ma'alla village dates back to 1910AD, and its residents originate from Beit Fajjar town.

### **Photo of Marah Ma'alla**

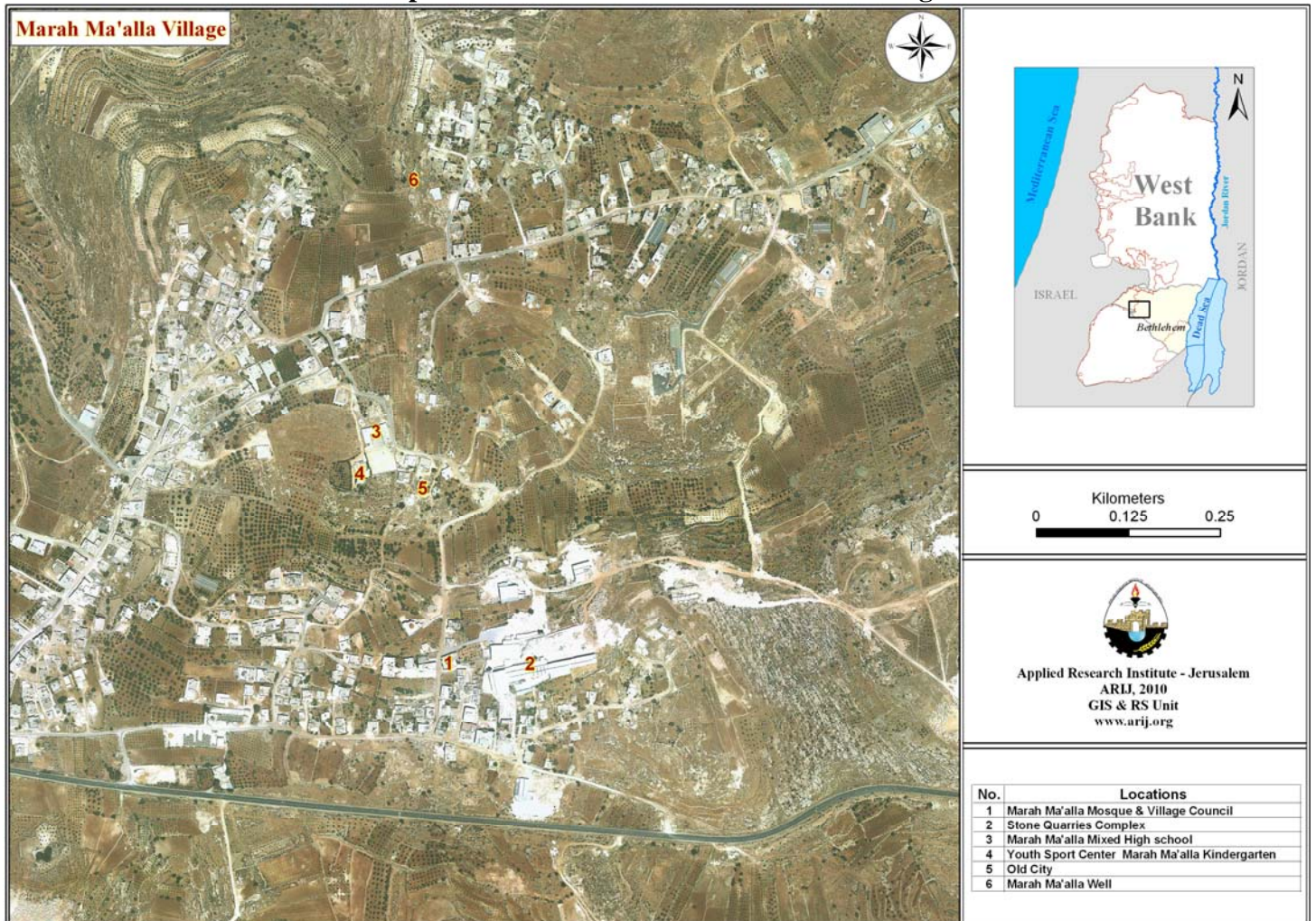


## Religious and Archaeological Sites

In terms of religious establishments, there is only one mosque in Marah Ma'alla: Marah Ma'alla Mosque.

There are no archaeological sites in the village (See map 2).

**Map 2: Main locations in Marah Ma'alla village**



## Population

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of Marah Ma'alla in 2007 was 685; of whom 373 are males and 312 are females. There are 99 households living in 106 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 Marah Ma'alla is as follows: 45.1 percent are less than 15 years, 52 percent are between 15 - 64 years, and 1.7 percent are 65 years and older. Data also showed that the sex ratio of males to females in the village is 119.6:100, meaning that males constitute 54.5 percent of the population, and females constitute 45.5 percent of the population.

### Families

The inhabitants of Marah Ma'alla village are composed of several families, mainly: Abu Shakra.

### Immigration

The field survey showed that about five families have left the village.

## Education

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among Marah Ma'alla population is about 8.2 percent, of whom 75 percent are females. Of the literate population, 20 percent can read and write, 37.7 percent had elementary education, 31.7 percent had preparatory education, 8.9 percent had secondary education, and 1.7 percent completed higher education. Table 1, shows the educational level in the village of Marah Ma'alla, by sex, and educational attainment in 2007.

Sex	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Total
M	9	41	107	59	17	2	3	-	-	-	<b>238</b>
F	27	39	44	68	19	-	2	-	-	-	<b>199</b>
<b>T</b>	<b>36</b>	<b>80</b>	<b>151</b>	<b>127</b>	<b>36</b>	<b>2</b>	<b>5</b>	-	-	-	<b>437</b>

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



In regards to the basic and secondary education institutions and schools in Marah Ma'alla in the academic year 2008/2009, there is only one public mixed school in the village; Marah Ma'alla Elementary Mixed School, which is run by the Palestinian Ministry of Higher Education. There are no private schools in Marah Ma'alla.

In the village there are 213 students; 13 teachers, and 10 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 16, while the average number of students per class is approximately 21

Furthermore there is one kindergarten in Marah Ma'alla; Marah Ma'alla Kindergarten, run by the village council, and has a total number of 70 children (Marah Ma'alla Village Council, 2010).

## Health Status

There are no health facilities available in Marah Ma'alla village but there is one public physician's office run by UNRWA. There is no ambulance available in the village therefore in emergency cases, residents of Marah Ma'alla use Bethlehem hospitals and health centers, such as: Beit Jala Governmental Hospital (Al Hussein), which is about 15km from the village, and the Rehabilitation Arab Society in Beit Jala, which is about 18km from the village.

The health sector in Marah Ma'alla faces several obstacles, mainly:

1. The absence of a health center in the village to provide health services to its residents.
2. The long distance between the village and health centers in the neighboring villages.

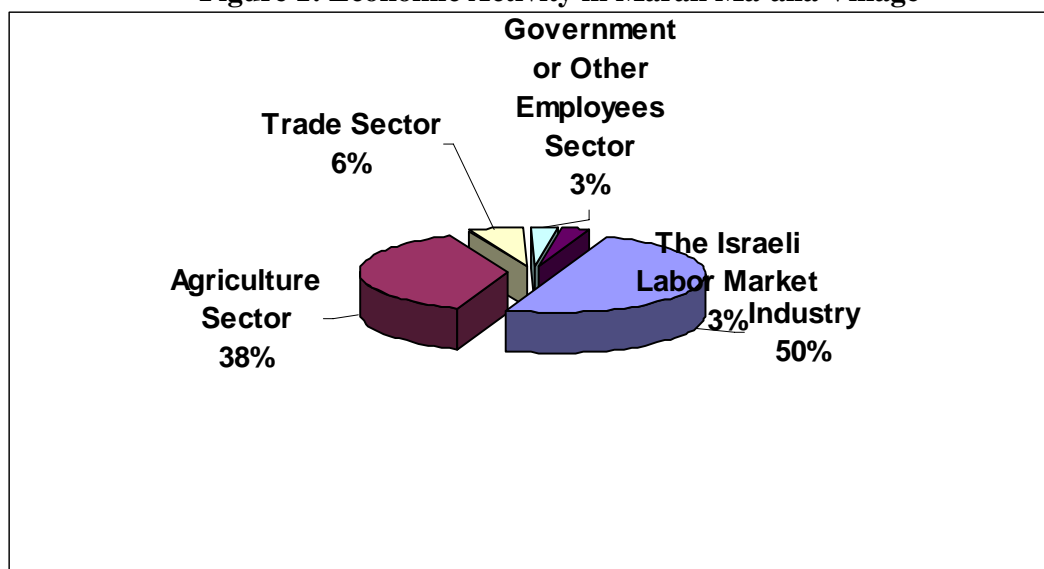
## Economic Activities

The economy in Marah Ma'alla is dependent on several economic sectors, mainly: the industrial sector, which absorbs 50 percent of the village workforce (See Figure1).

The results of a field survey for the distribution of labor by economic activity in Marah Ma'alla are the following:

- Industry (50%)
- Agriculture Sector (38%)
- Trade Sector (6%)
- Israeli Labor Market (3%)
- Government or Other Employees Sector (3%)

**Figure 1: Economic Activity in Marah Ma'alla Village**



There are some economic and industrial activities in Marah Ma'alla, mainly: stone and marble industry, as there are 3 stone and marble quarries in the village, in addition to two butcheries, two different service stores, four groceries and 1 grocery store.

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. As a result the unemployment rate in Marah Ma'alla has reached about 10 percent.

### **Labor Force**

According to the PCBS Population, Housing and Establishment Census-2007, 34.6 percent of Marah Ma'alla population was economically active, of whom 83.4 percent were employed, 65.4 percent were not economically active, 49 percent were students, and 44.8 percent were housekeepers (See table 2).

SEX	Economically Active				Not Economically Active						Total
	Employed	Currently Unemployed	Unemployed (Never worked)	Total	Students	House-keeping	Unable to work	Not working & Not looking for work	Other	Total	
M	126	24	1	<b>151</b>	75	-	11	-	1	<b>87</b>	<b>238</b>
F	-	-	-	-	65	128	6	-	-	<b>199</b>	<b>199</b>
<b>T</b>	<b>126</b>	<b>24</b>	<b>1</b>	<b>151</b>	<b>140</b>	<b>128</b>	<b>17</b>	<b>-</b>	<b>1</b>	<b>286</b>	<b>437</b>

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

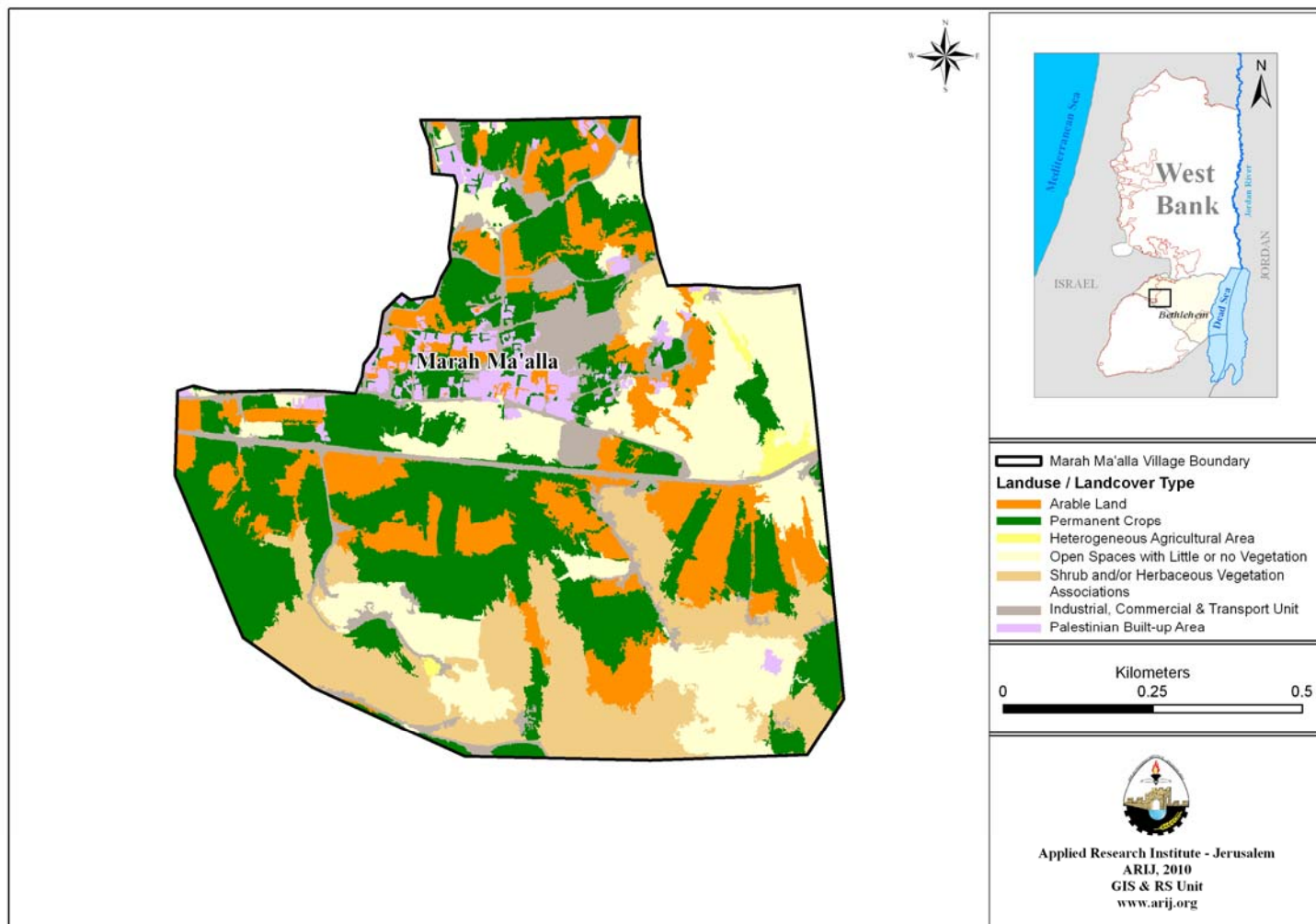
## Agricultural Sector

Marah Ma'alla lies on a total area of about 821 dunums of which 711 dunums are considered arable land, and 32 dunums are residential land (See table 3 and map 3).

Total Area	Built up Area	Arable Land (711)					Area of Industrial, Commercial & Transport Unit	Area of Settlements and Military Bases
		Seasonal Crops	Permanent Crops	Greenhouses	Forests	Open Spaces and Rangelands		
821	32	146	262	0	0	303	78	0

Source: GIS unit – ARIJ, 2008

**Map 3: Land use/land cover and Segregation Wall in Marah Ma'alla Village**



Agriculture production in Marah Ma'alla 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 Marah Ma'alla. The most common crop cultivated within this area is tomato.

Fruity vegetables		Leafy vegetable		Green legumes		Bulbs		Other vegetables		Total area	
RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.
9	11	0	5	0	3	0	0.5	0	7	9	26.5

*Rf: Rain-fed, Irr: Irrigated*

*Source: Palestinian Ministry of Agriculture, 2007*

Table 5 shows the different types of fruit trees planted in the area. The village is famous for its grapes; there are 260 dunums planted with grape vines in the village.

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.
50	0	0	0	0	0	0	0	0	0	260	0	310	0

*Rf: Rain-fed, Irr: Irrigated*

*Source: Palestinian Ministry of Agriculture, 2007*

As for the field crops and forage in Marah Ma'alla, cereals, in particular wheat and barley are the most cultivated crops covering an area of about 72 dunums, while forage crops, such as bitter vetch and common vetch are the second most cultivated crops (See table 6).

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
72	0	0	0	15	0	0	0	15	0	0	0	0	0	102	0

*Rf: Rain-fed, Irr: Irrigated*

*Source: Palestinian Ministry of Agriculture, 2007*

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

Cows*	Sheep	Goats	Camels	Horses	Donkeys	Mules	Broilers	Layers	Bee Hives
0	163	63	0	1	5	6	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 tractors and agricultural machinery.

## Institutions and Services

Marah Ma'alla has a postal services division, in addition to a few 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: (Marah Ma'alla Village Council, 2010)

- **Marah Ma'alla Village Council:** Founded in 1995 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.

- **Marah Ma'alla Club:** Founded in 1985 by a local committee and is interested in all youth and sport activities in the village
- **Agriculture Cooperative Society:** Founded in 2009 by the World Vision Organization, in order to assist and serve the farmers and help in the development of agriculture.

## Infrastructure and Natural Resources

### Electricity and Telecommunication Services:

Marah Ma'alla has been connected to a public electricity network since 1983; served by Jerusalem Electricity Company, which is the main source of electricity in the village. Approximately 97.9 percent of the housing units in the town are connected to the network, 1.1 percent are dependent on private generators for electricity, while the source of electricity is unknown for the remaining units (1.1%). (Central Bureau of Statistics, 2007)

Furthermore, Marah Ma'alla is connected to a telecommunication network and approximately 3.2 percent of the housing units within the village boundaries are connected to phone lines.

### Transportation Services:

Private cars and taxis are the two main means of transportation in Marah Ma'alla. As for the road network in the village; there are a total of 3km of main roads; of which 2km are paved and in good condition, and 1km is paved but in bad condition, and a total of 3km of secondary roads; of which 2km are paved and in good condition and 1km is paved but in bad condition (Marah Ma'alla village council, 2010).

### Water Resources:

Marah Ma'alla is provided with water by the West Bank Water Department through the public water network established in 1979, and about 98.9 percent of the housing units are connected to the water network, while the source of water supply is unknown for the remaining units (1.1%) (Central Bureau of Statistics, 2007). The quantity of water supplied to Marah Ma'alla in 2008 was about 9,004 cubic meters/year therefore the estimated rate of water supply per capita is about 36 liters/day (PWA, 2008).

Here it should be noted that many Marah Ma'alla citizens do not in fact consume this amount of water because of water losses, which are about 39 percent. The losses usually 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 Marah Ma'alla is 22 liters per day, which is considered a low rate compared with the minimum quantity proposed by the World Health Organization, which is 100 liters per capita per day.

Also, Marah Ma'alla has 14 rainwater harvesting cisterns (Marah Ma'alla Village Council, 2010).

### **Sanitation:**

Marah Ma'alla lacks a public sewage network; most of the population uses cesspits as means for wastewater disposal. According to the results of Community Survey conducted by the PCBS in 2007 and the data provided from PWA, the majority of Marah Ma'alla housing units (96.8%) use the cesspits as a major means for wastewater disposal, and 2.1 percent of the housing units do not have any wastewater collection service, while the mean of wastewater disposal is unknown for the remaining units (1.1%).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day, is approximately 12 cubic meters, or 4,380 cubic meters annually. At the individual level in the village it is estimated that the per capita wastewater generation is approximately 18 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:**

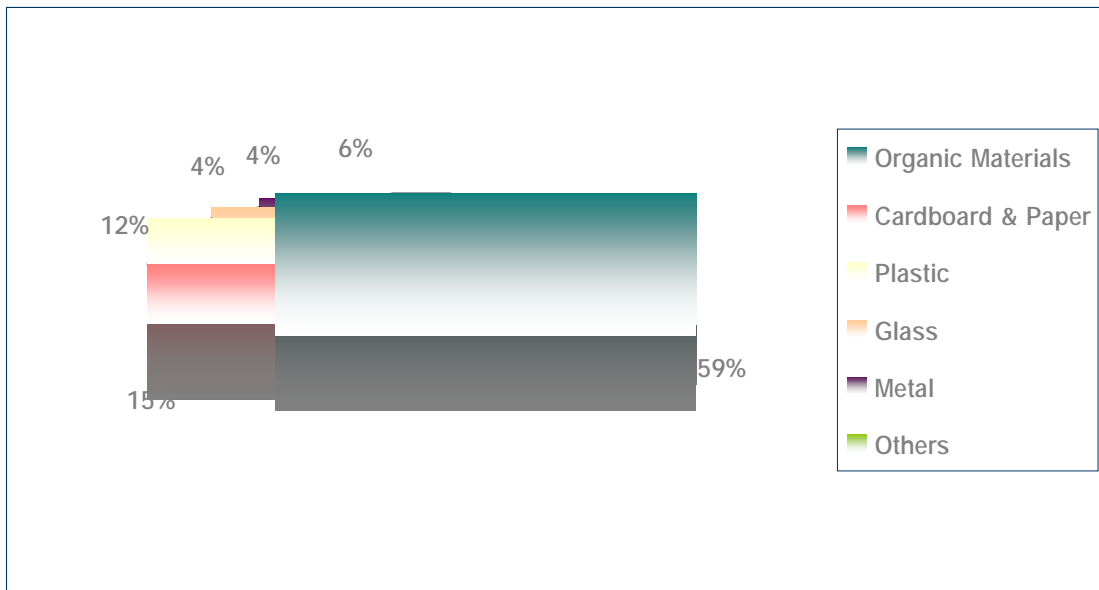
The Joint Services Council for the Southern Countryside is considered the official body responsible for managing solid waste, i.e. solid waste collection and disposal, generated from the citizens and establishments in Marah Ma'alla, which is currently represented by solid waste collection and disposal. 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 which is about 12.5 NIS/month. However, the collected fees are not considered sufficient for a good management of solid waste.

Most of the population in Marah Ma'alla benefit from the solid waste services, where waste is collected from households, institutions, shops, and public squares in plastic bags and then transferred to 8 containers, with a capacity of 0.5 cubic meters each, spread throughout the neighborhoods. The joint service council collects the solid waste from the containers two days a week and transports it to Dar Salah dumping site, 25km from Marah Ma'alla. The common method for solid waste treatment in the dumping site is setting waste on fire or sometimes burying it. In the coming future the solid waste will be disposed in Al Maniya landfill which will be established in Bethlehem governorate. 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 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 Marah Ma’alla is 0.7kg. Thus the estimated amount of solid waste produced per day from Marah Ma’alla residents is nearly 480kg, or 175 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, Marah Ma’alla 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 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 Marah Ma'alla 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 bad odors and distortion of the landscape. It should be noted here that a sanitary landfill is currently under construction 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 Dar Salah landfill for disposal by burning.

**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.

## Impact of the Israeli Occupation

According to the Oslo Interim Agreement, signed in September 1995, between the Palestinian National Authority and the Israeli government, 41 dunums of Marah Ma'alla lands (5 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 and where Israeli has full control over security matters, while the remaining area of Marah Ma'alla lands, 780 dunums (95% 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).

Land Classification	Area (dunum)	% of the Total Area
Area A	0	0
Area B	41	5
Area C	780	95
<b>Total Area</b>	<b>821</b>	<b>100</b>

Source: GIS unit –ARIJ 2009

### Bypass roads in Marah Ma'alla village

The Israeli bypass road No. 3689 cuts through Marah Ma'alla territories (with a length of 1.09km), connects to the Israeli bypass road No. 356, and extends towards the south to Ma'ale Amos settlement, and then continues to the east, towards the Dead Sea.

## Development Plans and Projects

### Implemented Projects

Marah Ma'alla village council did not implement any development projects in Marah Ma'alla during the previous years.

## Proposed Projects

Marah Ma'alla 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 village. The projects are as follows, in order of priority, from the viewpoint of the participants in the workshop:

1. Construction of domestic and agricultural cisterns.
2. Establishment of a health clinic.
3. Establishment of home gardens.
4. Supporting livestock and agricultural products.
5. Establishment of a sewage network or wastewater treatment plant, at household level.
6. Restoration of old houses in the village.
7. Providing job opportunities for women through the establishment of a sewing or embroidery workshops.
8. Providing games for the village kindergarten.
9. Construction of agricultural roads and the reclamation of agricultural land.
10. Providing electricity counters to houses that are not connected to electricity.
11. Expanding the village school.
12. Providing job opportunities for the youth through giving them loans in order to establish small projects.

## Locality Development Priorities and Needs

Marah Ma'alla suffers from a significant shortage of infrastructure and services. Table 9 shows the development priorities and needs in the village, according to the village council's point of view (Marah Ma'alla Village Council, 2010):

No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
<b>Infrastructural Needs</b>					
1	Opening and Pavement of Roads	*			3.5km*
2	Rehabilitation of Old Water Networks	*		*	
3	Extending the Water Network to Cover New Built up Areas	*			1.5km
4	Construction of New Water Networks			*	
5	Rehabilitation/ Construction of New Wells or Springs			*	
6	Construction of Water Reservoirs	*			10,000m <sup>3</sup>
7	Construction of a Sewage Disposal Network			*	
8	Construction of a New Electricity Network	*			2km
9	Providing Containers for Solid Waste Collection	*			10 containers
10	Providing Vehicles for Collecting Solid Waste	*			1
11	Providing a Sanitary Landfill	*			
<b>Health Needs</b>					
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	*			
<b>Educational Needs</b>					
1	Building of New Schools	*			classrooms
2	Rehabilitation of Old Schools	*			elementary & secondary
3	Purchasing of New Equipment for Schools	*			elementary & secondary schools
<b>Agriculture Needs</b>					
1	Rehabilitation of Agricultural Lands	*			100 dunums
2	Building Rainwater Harvesting Cisterns	*			15 cistern
3	Construction of Barracks for Livestock	*			10 barracks
4	Veterinary Services	*			
5	Seeds and Hay for Animals	*			
6	Construction of New Greenhouses	*			5 greenhouses
7	Rehabilitation of Greenhouses			*	
8	Field Crops Seeds	*			
9	Plants And Agricultural Supplies	*			

\*1.5km is a main road, 1km internal road and 1km agricultural road

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