

Marah Rabah 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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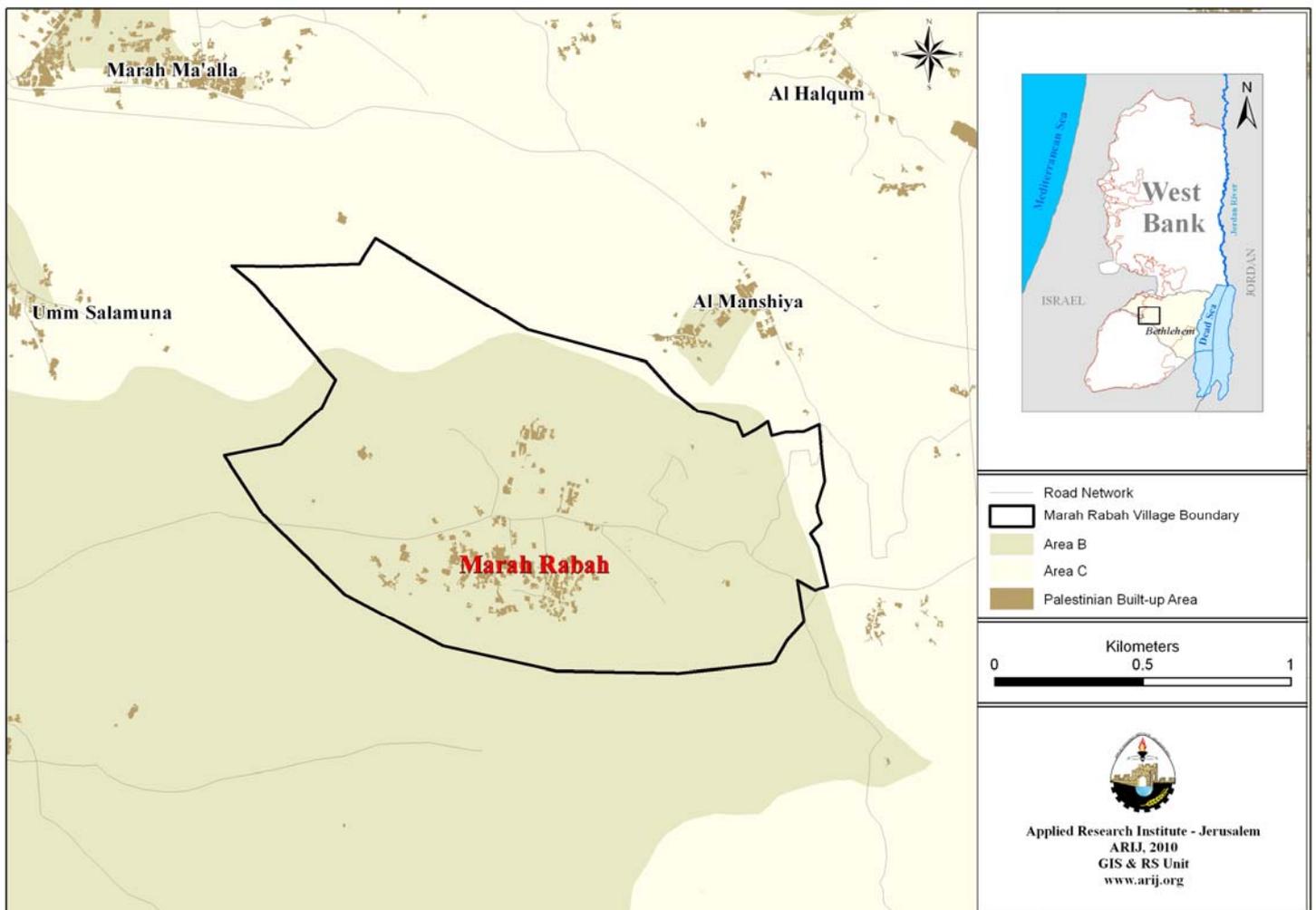
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Marah Rabah Village Profile

Location and Physical Characteristics

Marah Rabah is a Palestinian village in Bethlehem Governorate located 8.3km (horizontal distance) south of Bethlehem City. Marah Rabah is bordered by Tuqu' town to the east, Al Manshiya village to the north, Beit Fajjar town to the west, and Beit Fajjar territories to the south (See map 1).

Map 1: Marah Rabah location and borders



Marah Rabah is located at an altitude of 820m above sea level with a mean annual rainfall of 502mm. The average annual temperature is 16° C, and the average annual humidity is about 61 percent (ARIJ GIS, 2009).

Since 1996, Marah Rabah has been governed by a village council which is currently administrated by nine members appointed by the Palestinian National Authority. There are 3 employees working in the council. The village council owns a permanent headquarters.

It is the responsibility of the village council to provide the listed services to the residents of Marah Rabah, including:

1. Infrastructure services such as water and electricity.
2. Solid waste collection, road construction and restoration, street cleaning, and social development services.
3. Protection of government properties, religious and archaeological sites.
4. Implementation of projects and case studies for the village.
5. Organization of the construction and licensing processes.

History

Marah Rabah village was named in relation to the vast and comfortable land. Marah Rabah village dates back to 1850, and its residents originate from Beit Fajjar town and At Ta'amra Arabs.

Photo of Marah Rabah

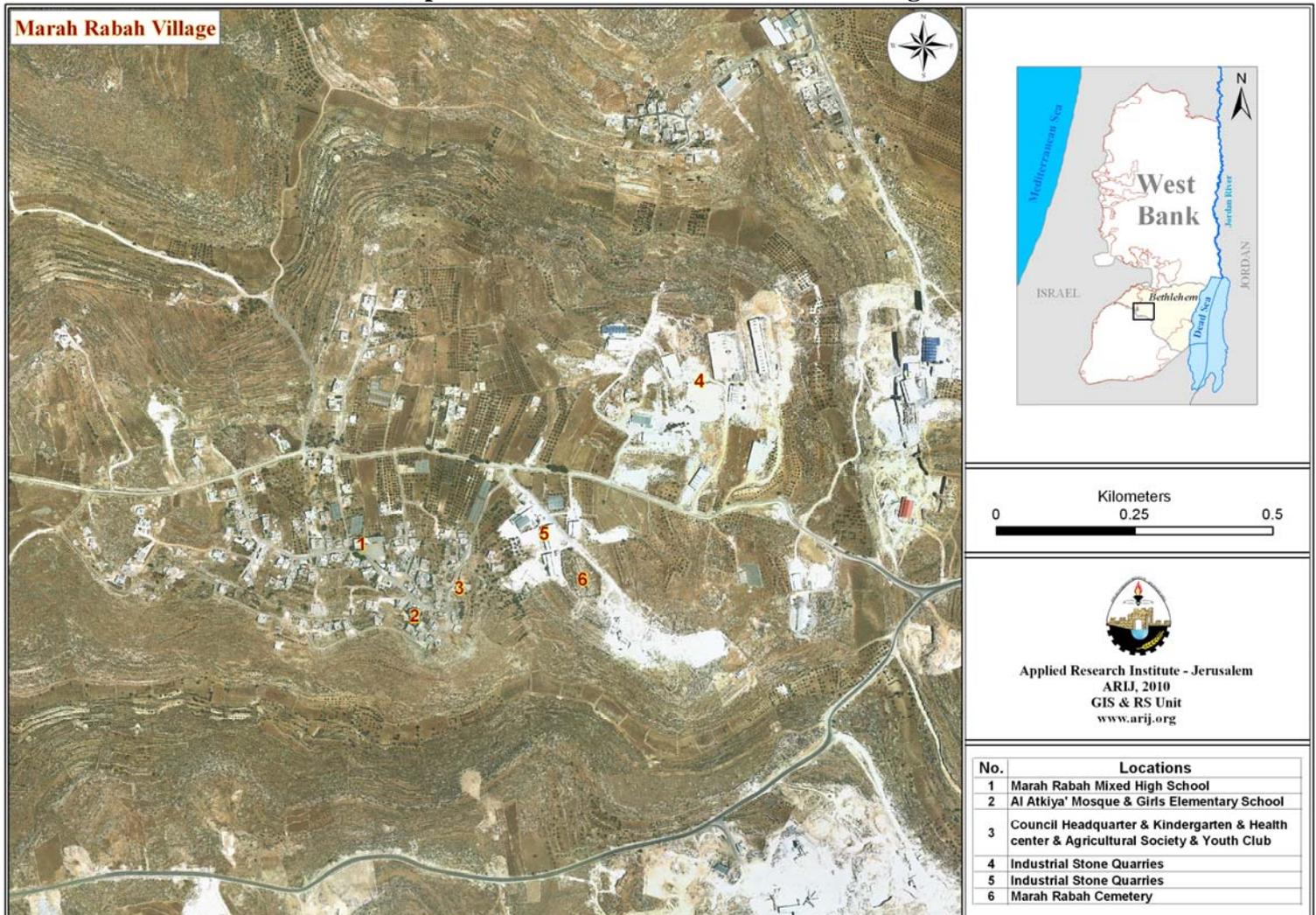


Religious and Archaeological Sites

In terms of religious establishments, there is only one mosque in Marah Rabah: Al Atkiya' Mosque.

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

Map 2: Main locations in Marah Rabah village



Population

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of Marah Rabah in 2007 was 1,320; of whom 690 are males and 630 are females. There are 169 households living in 177 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 Rabah is as follows: 50.2 percent are less than 15 years, 46.6 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 109.4:100, meaning that males constitute 52.2 percent of the population, and females constitute 47.8 percent of the population.

Families

The inhabitants of Marah Rabah village are composed of several families, mainly: Ash Sheikh, Al Fakeeh, An Nawawra, Ath Thawabta, and Abu Shakra.

Education

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among Marah Rabah population is about 4.4 percent, of whom 55.6 percent are females. Of the literate population, 16.3 percent can read and write, 39.9 percent had elementary education, 27.2 percent had preparatory education, 12.7 percent had secondary education, and 3.9 percent completed higher education. Table 1, shows the educational level in the village of Marah Rabah, by sex, and educational attainment in 2007.

Sex	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Total
M	16	62	160	111	60	15	10	-	-	-	434
F	20	66	154	102	40	2	4	-	-	-	388
T	36	128	314	213	100	17	14	-	-	-	822

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

In regards to the basic and secondary education institutions and schools in Marah Rabah in the academic year 2008/2009, there are two public schools in the village; one for girls and one mixed school, both run by the Palestinian Ministry of Higher Education. There are no private schools in Marah Rabah. See Table 2.

In the village there are 449 students; 29 teachers, and 20 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 23.

School Name	Supervising Authority	Sex
Marah Rabah Girls Elementary School	Government	Female
Marah Rabah Mixed High School	Government	Mixed

Source: Directorate of Education in Bethlehem, 2009

Furthermore, there is one kindergarten in Marah Rabah; Bara'em Al Aqsa Kindergarten, which is privately run and has a total number of 40 children (Marah Rabah Village Council, 2010).

Health Status

In Marah Rabah there are no health facilities available of any kind, and there is no ambulance. In emergency cases, residents of Marah Rabah use Bethlehem hospitals and health centers, in particular, Bethlehem Health center, which is about 15km from the village.

The health sector in Marah Rabah village faces several obstacles, mainly:

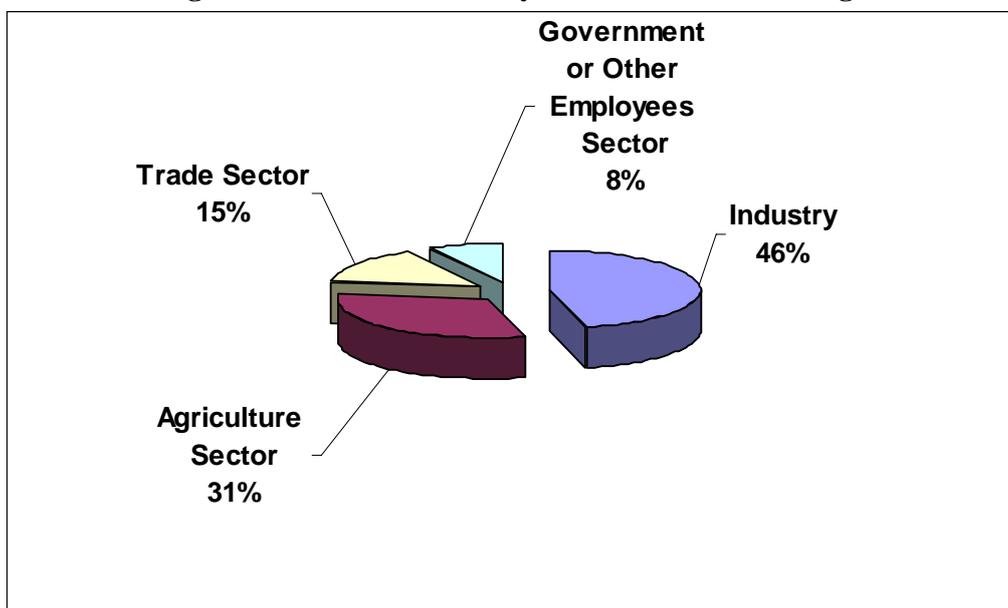
1. The absence of a health center or clinic in the village to provide health services to its residents.
2. The long distance between the village and the health centers in neighboring villages.

Economic Activities

The economy in Marah Rabah is dependent on several economic sectors, mainly: the Industrial sector, which absorbs 46 percent of the village workforce (See Figure1). The results of a field survey for the distribution of labor by economic activity in Marah Rabah are the following:

- Industry (46%)
- Agriculture Sector (31%)
- Trade Sector (15%)
- Government or Other Employees Sector (8%)

Figure 1: Economic Activity in Marah Rabah Village



There are some economic and industrial activities in Marah Rabah, mainly: stone and marble industry; there are 3 stone and marble quarries in the village, in addition to one butcher, one grocery, and 5 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 Marah Rabah has reached about 35 percent. It was found that the most vulnerable social groups in the town, as a result of Israeli actions, are:

1. Workers in stone quarries.
2. Workers in agricultural activities.
3. Workers in the trade sector.

Labor Force

According to the PCBS Population, Housing and Establishment Census-2007, 26 percent of the Marah Rabah population was economically active, of whom 92.1 percent were employed, and 74 percent were not economically active, 53.5 percent were students and 31.4 percent were housekeepers (See table 3).

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	193	9	8	210	176	2	27	1	17	223	434
F	4	-	-	4	148	188	22	-	25	383	388
T	197	9	8	214	324	190	49	1	42	606	822

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

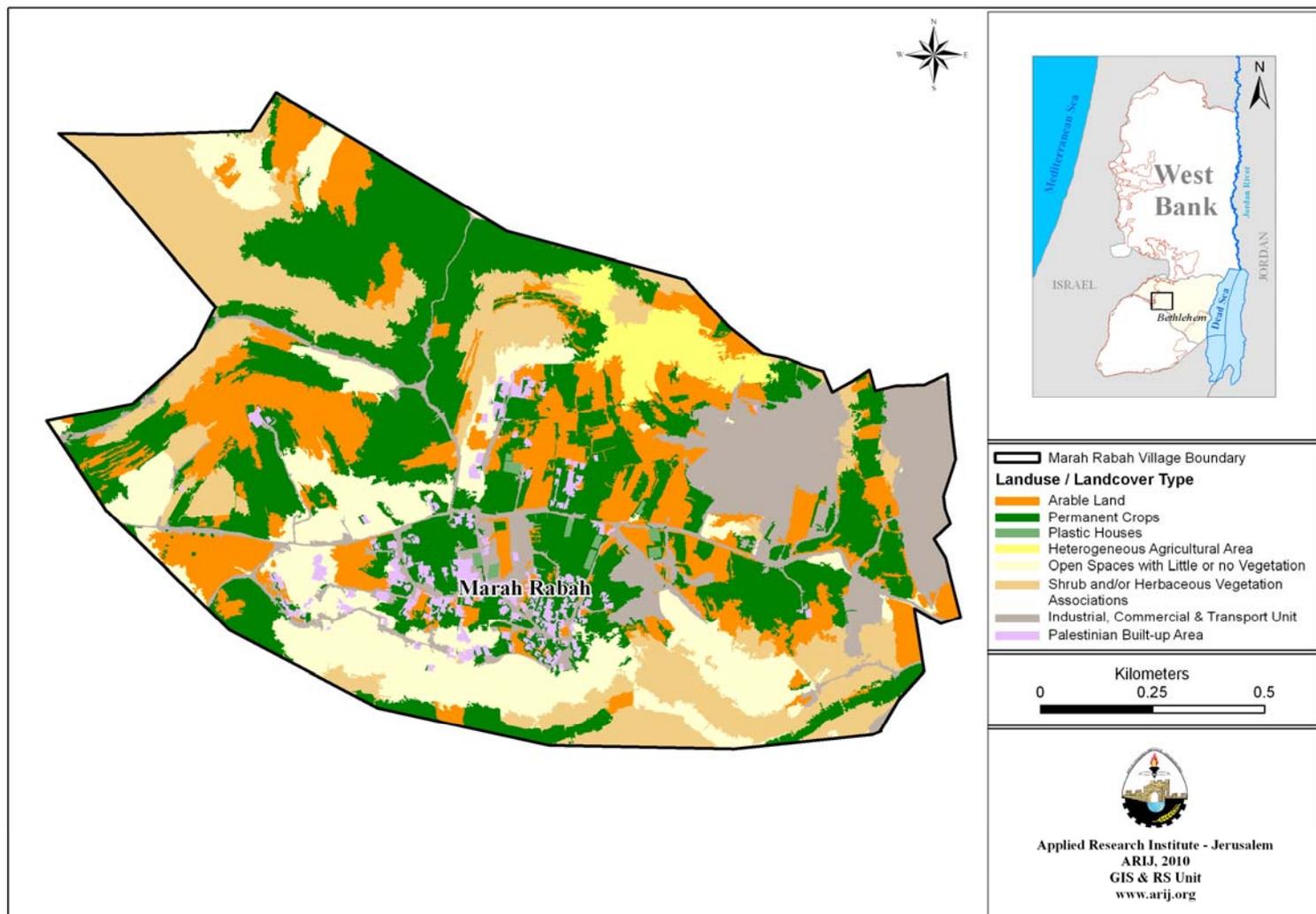
Agricultural Sector

Marah Rabah lies on a total area of about 1,895 dunums of which 1,589 dunums are considered arable land, and 49 dunums are residential land (See table 4 and map 3).

Total Area	Built up Area	Arable Land (1,589)					Area of Industrial, Commercial & Transport Unit	Area of Settlements and Military Bases
		Seasonal Crops	Permanent Crops	Greenhouses	Forests	Open Spaces and Rangelands		
1,895	49	391	569	6	0	623	257	0

Source: GIS unit – ARIJ, 2008

Map 3: Land use/land cover and Segregation Wall in Marah Rabah Village



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

Table 5 shows the different types of rain-fed and irrigated open-cultivated vegetables in Marah Rabah. The most common crop cultivated within this area is tomato.

Table 5: Total area of rain-fed and irrigated open cultivated vegetables in Marah Rabah village (dunum)

Fruity vegetables		Leafy vegetable		Green legumes		Bulbs		Other vegetables		Total area	
RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.
5	9.5	0	4	0	2.5	0	0.5	0	3	5	19.5

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

There are also 6 dunums of land on which there are greenhouses planted with different vegetables, mainly: cucumber.

Table 6 shows the different types of fruit trees planted in the area. Marah Rabah village is famous with grape cultivation; there are 668 dunums planted with grape vines.

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.
600	0	0	0	0	0	3	0	100	0	668	0	1,371	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

As for the field crops and forage in Marah Rabah, cereals, in particular wheat and barley, are the most cultivated covering an area of about 190 dunums, while forage crops, such as common vetch and bitter vetch are the next most cultivated crops (See table 7).

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
190	0	0	0	20	0	0	0	18	0	4	0	0	0	232	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

The field survey shows that most of the residents in Marah Rabah are rearing and keeping domestic animals such as sheep, goats, broiler chicken, and bees (See Table 8).

Cows*	Sheep	Goats	Camels	Horses	Donkeys	Mules	Broilers	Layers	Bee Hives
0	891	499	0	15	6	0	10,700	0	30

*Including cows, bull calves, heifer calves and bulls

Source: Palestinian Ministry of Agriculture, 2007

There are about 20 kilometers of agricultural roads in the village suitable for tractors and agricultural machinery.

Institutions and Services

Marah Rabah has a number of local institutions and associations that provide services to various segments of society: children, youth and women. The services are in the areas of culture, sports and others, including (Marah Rabah village council, 2010):

- **Marah Rabah 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 various services to its population.
- **Marah Rabah Women Society:** Founded in 2007 by the Interior Ministry, with the goal of taking care of all the women's and children's issues.
- **Marah Rabah Agriculture Society:** Founded in 2004 by the Interior Ministry in order to assist and serve the farmers and help in the development of agriculture.
- **Marah Rabah Sport Club:** Founded in 1998 by the Ministry of Youth and Sport, with the interest in all sport and cultural activities in the village.

Infrastructure and Natural Resources

Electricity and Telecommunication Services:

Marah Rabah has been connected to a public electricity network since 1982; served by Jerusalem Electricity Company, which is the main source of electricity in the village. Approximately 98.8 percent of the housing units in the village are connected to the network, while the source of electricity is unknown for the remaining units (1.2%) (Central Bureau of Statistics, 2007).

Furthermore, Marah Rabah is connected to a telecommunication network and approximately 48.5 percent of the housing units within the village boundaries are connected to phone lines (Central Bureau of Statistics, 2007).

Transportation Services:

Private cars and taxis are the two main means of transportation in Marah Rabah. As for the road network in the village; there are a total of 11km of main road; of which 3km are paved and in good condition, 3km are paved but in bad condition, and 5km are unpaved and, a total of 7km of secondary roads; of which 4km are paved and 3km are unpaved (Marah Rabah village council, 2010).

Water Resources:

Marah Rabah is provided with water by the West Bank Water Department, through the public water network established in 1983; about 98.2 percent of the housing units are connected to the water network, and 0.6 percent depends on rainwater harvesting cisterns, while the source of water supply is unknown for the remaining units (1.2%) (PCBS, 2007). The quantity of water supplied to Marah Rabah in 2008 was about 36,300 cubic meters/year, therefore the estimated rate of water supply per capita is about 75 liters/day (PWA, 2008).

Here it should be noted that no Marah Rabah citizen in fact consumes 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 Marah Rabah is 46 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, Marah Rabah has 25 rainwater harvesting cisterns (Marah Rabah village council, 2010).

Sanitation:

Marah Rabah lacks a public sewage network; most of the population uses cesspits as means for wastewater disposal. According to PCBS's Population and Housing Census in 2007 and PWA data, the majority of Marah Rabah's housing units (98.8%) use cesspits for wastewater disposal, while the means for wastewater disposal is unknown for the rest of Marah Rabah's housing units (1.2%).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day, is approximately 49 cubic meters, or 17,885 cubic meters annually. At the individual level in the village it is estimated that the per capita wastewater generation is approximately 37 liters per day. The wastewater collected by cesspits is discharged by wastewater tankers directly into open areas or nearby valleys without any regard for the environment. Here it should be noted that there is no wastewater treatment either at the source or at the disposal sites and this poses a serious threat to the environment and the public health.

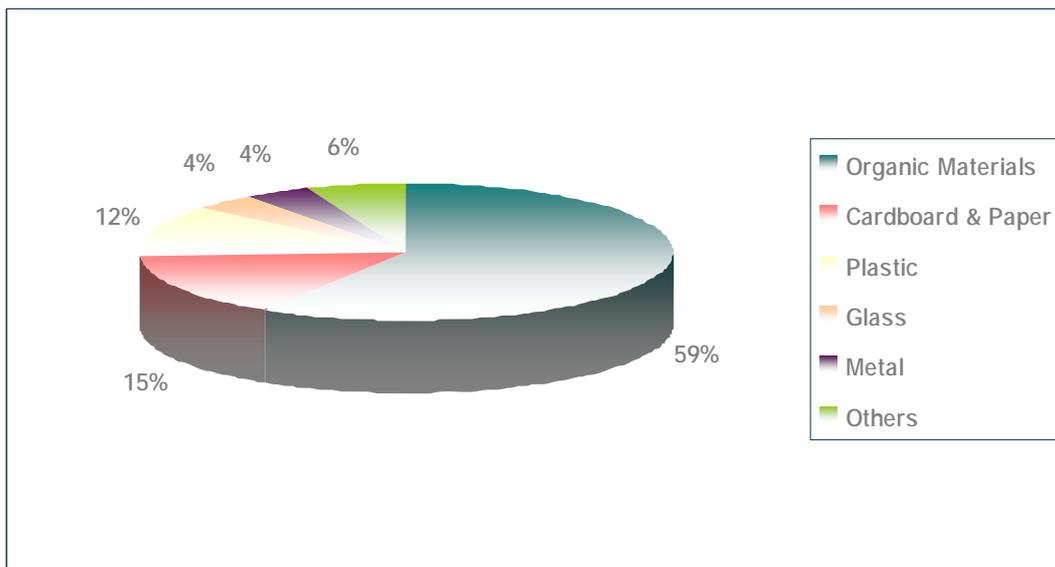
Solid Waste Management:

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 Rabah, 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 of 2 NIS/capita has been charged on the population serviced by domestic solid waste collection and transportation services, however, the collected fees are not considered sufficient for a good management of solid waste.

Most of the population in Marah Rabah benefit from the solid waste services, where waste is collected from households, institutions, shops, and public squares in plastic bags and then transferred to 10 containers, with a capacity of 1.1 cubic meters each, spread throughout the neighborhoods. The joint services council collects the solid waste from the containers two days a week and transports it to Dar Salah dumping site, 25km from Marah rabah. 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 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 Rabah is 0.7kg. Thus the estimated amount of solid waste produced per day from the Marah Rabah residents is nearly 994kg, or 363 tons per year. The main component of household solid waste is composed of organic materials, followed by paper and cardboard, an 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 Rabah 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; which makes the village residents dependent largely on water purchase.
- (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 and 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 wastewater mixes with water, making it contaminated 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 resident's health.

Solid Waste Management:

The lack of a central sanitary landfill to serve Marah Rabah and the other communities in the governorate is due mainly to the obstacles created by the Israeli authorities for local and national institutions, such as the difficulty to obtain licenses to establish such a landfill, because the appropriate land is within Area C, under the Israeli full 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, and a source of pollution to the groundwater and soil through the leachate produced from the solid waste, and it also produces bad odors and distorts 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 Oslo Interim Agreement, signed in September 1995, between the Palestinian National Authority and the Israeli government, 1601 dunums of Marah Rabah lands (84.5 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, where Israeli has full control over security matters), while the remaining area of Marah Rabah lands, 293 dunums (15.5 percent of the total area of the village) were classified as area C (an area that is under the full control of the Israeli government) (Table 9).

Land Classification	Area (dunum)	% of the Total Area
Area A	0	0
Area B	1601	84.5
Area C	293	15.5
Total Area	1894	100

Source: GIS unit –ARIJ 2009

Development Plans and Projects

Implemented Projects

Marah Rabah village council has implemented several development projects in Marah Rabah, during the years 2005 to 2009, as shown in Table 10.

Name of the Project	Year	Type	Donor
Construction of a girls school	2009	Construction/ Educational	The Belgian Government / through the Ministry of Education
Pavement of the main street in the village	2009	Infrastructure	Abu Dhabi Bank/ through the Ministry of Finance
Reclamation of agricultural lands	2007	Agricultural	World Vision Organization
Construction of a wall around the whole school	2007	Construction	Village Council
Construction of harvesting cisterns and home gardens	2006	Agricultural	ARIJ & World Vision
Construction of a kindergarten with a garden	2006	Construction/ Educational	Village Council
Expansion of the main street	2006	Infrastructure	Village Council
Purchase of land for development projects in the village	2005	Investment	Village Council

Source: Marah Rabah Village Council, 2010

Proposed Projects

Marah Rabah 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. Establishment of sewage network.
2. Providing streetlights in the village.
3. Solving the water crises through establishing water reservoir and rainwater harvesting cisterns.
4. Establishment of a specialized health center.
5. Funding and supporting agricultural projects in addition to supporting farmers in all respects, such as land reclamation, the provision of seedlings, greenhouses, and home gardens and the construction of agricultural wells and agricultural roads.
6. Establishment of small projects for women (such as: sewing, broiler chicken, pastries, sheep breeding, cows, and home gardens).
7. Establishment of a center for women and children in the village.
8. Establishment of a headquarters for the sport club.
9. Establishment of a center for people with special needs.
10. Providing financial support for university students.
11. Establishment of an internet network to serve the village residents.
12. Conducting specialized courses for weak students.
13. Establishment of a public park.
14. Providing headquarters for public institutions.

Locality Development Priorities and Needs

Marah Rabah suffers from a significant shortage of infrastructure and services. Table 11 shows the development priorities and needs in the village, according to the village council's point of view (Marah Rabah Village Council, 2009):

No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
Infrastructural Needs					
1	Opening and Pavement of Roads	*			8.1km*
2	Rehabilitation of Old Water Networks	*			2km
3	Extending the Water Network to Cover New Built up Areas	*			3km
4	Construction of New Water Networks			*	
5	Rehabilitation/ Construction of New Wells or Springs			*	
6	Construction of Water Reservoirs	*			1,000m ³
7	Construction of a Sewage Disposal Network	*			
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			*	
Health Needs					
1	Building of New Clinics or Health Care Centres			*	
2	Rehabilitation of Old Clinics or Health Care Centres	*			
3	Purchasing of Medical Equipment and Tools	*			
Educational Needs					
1	Building of New Schools			*	
2	Rehabilitation of Old Schools			*	
3	Purchasing of New Equipment for Schools			*	
Agriculture Needs					
1	Rehabilitation of Agricultural Lands	*			100 dunums
2	Building Rainwater Harvesting Cisterns	*			30 cisterns
3	Construction of Barracks for Livestock	*			20 barracks
4	Veterinary Services	*			
5	Seeds and Hay for Animals	*			
6	Construction of New Greenhouses	*			10 greenhouses
7	Rehabilitation of Greenhouses	*			5 greenhouses
8	Field Crops Seeds	*			
9	Plants and Agricultural Supplies	*			

*2km is a main road, 1.1km internal road and 5km agricultural road.

References:

- *Applied Research Institute - Jerusalem (ARIJ)*. (2008 - 2009). Bethlehem, Palestine: Geographic Information Systems and Remote Sensing unit Database, 2009.
- *Directorate of Education - Bethlehem*. 2008/2009. Bethlehem, Palestine: A database of schools.
- *Marah Rabah Village Council*. 2010.
- *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.