

Artas 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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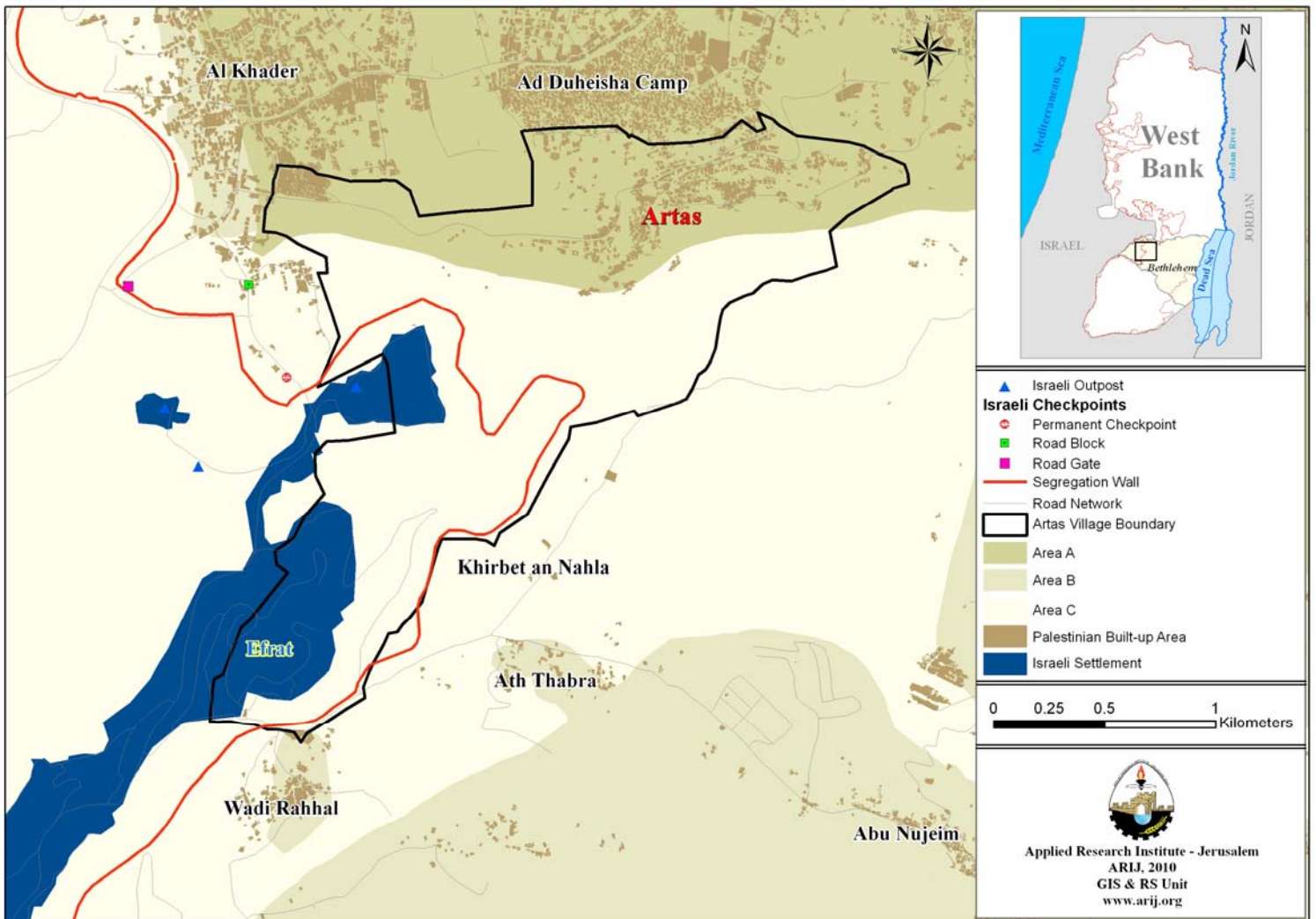
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Artas Village Profile

Location and Physical Characteristics

Artas is a Palestinian village in Bethlehem Governorate located 2.4km (horizontal distance) south-west of Bethlehem City. Artas is bordered by Hindaza village to the east, Ad Duheisha camp to the north, Al Khader town to the west, and Wadi Rahhal village to the south (See map 1).

Map 1: Artas location and borders



Artas is located at an altitude of 732m above sea level with a mean annual rainfall of 565mm. The average annual temperature is 16° C, and the average annual humidity is about 60.6 percent (ARIJ GIS, 2009).

Since 1996, Artas has been governed by a village council, which is currently administrated by nine members appointed by the Palestinian Authority. There are also two employees working in the council. The village council owns a permanent headquarters and a vehicle to collect solid waste.

It is the responsibility of the village council to provide a number of services to the residents of Artas, 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 religious and archaeological sites.
4. Implementation of projects and case studies for Artas Village.

History

The origin of the word Artas is Latin (Greek) "Artasium" which means garden or paradise, and it was known at the time of crusaders by the name "Hortus Conclusus," which means the closed paradise, and it kept its name since then.

Artas is one of the most important agricultural villages in the West Bank, as it is considered the food basket of Bethlehem governorate. Artas is an old Canaanite village, and the pools of water it has, known as Solomon's Pools, show how old the village is. Artas was known by the abundance of its water sources which are considered to be one of the oldest and largest water systems in Palestine which was supplying water to the city of Jerusalem during the Roman era. In terms of history, it is said that Artas village is the next oldest city after Jericho.

Photo of the Nunnery in Artas



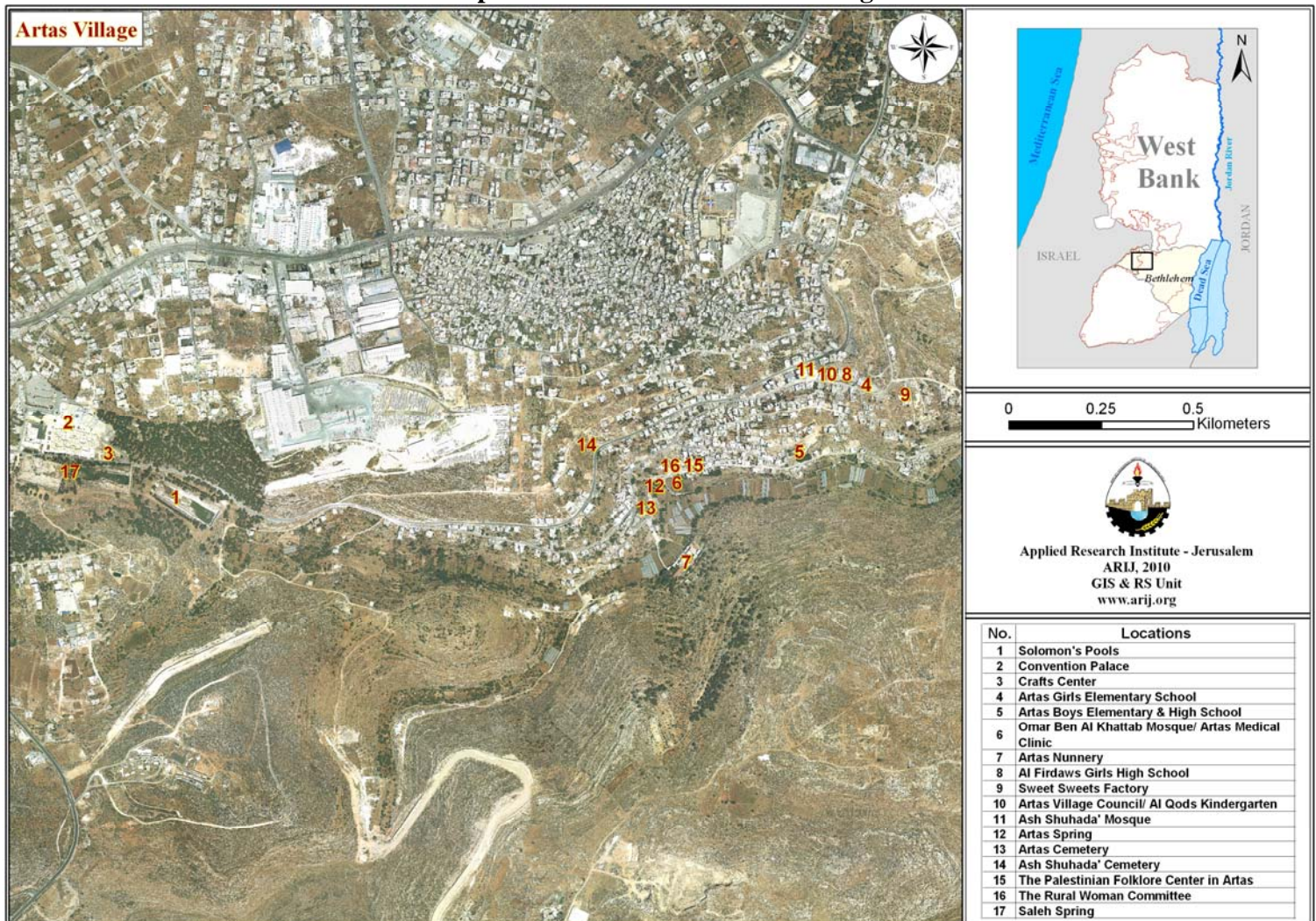
Religious and Archaeological Sites

In terms of religious establishments, there are two mosques in Artas: Artas Mosque and Ash Shuhada' Mosque.

As for the archaeological sites in the village, Artas was included in the tourism map and classified as a tourist destination that holds archaeological, religious, and cultural archaeological sites; and these sites are:

1. Solomon's Pools which are qualified in term of tourism.
2. Artas Nunnery, which is also qualified in terms of tourism, see the above image.
3. Artas Spring which is qualified in term of tourism.
4. Murad Castle.
5. Omar Bin Al Khattab Mosque, which was built on the ruins of the old mosque that was built as a shrine for Omar Bin Al Khattab, when he visited Jerusalem and passed through the city of Bethlehem (See map No. 2).

Map 2: Main locations in Artas village



Population

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of Artas in 2007 was 3,663; of whom 1,877 are males and 1,786 are females. There are 603 households living in 755 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 Artas is as follows: 41.2 percent are less than 15 years, 53.9 percent are between 15 - 64 years, and 4.9 percent are 65 years and older. Data also showed that the sex ratio of males to females in the village is 105:100, meaning that males constitute 51.2 percent of the population, and females constitute 48.8 percent of the population.

Families

The inhabitants of Artas village are composed of several families, mainly: 'Ayesh, Isma'el, Odah, Rabai'a, Sanad, As'ad, Othman, Abu Swai, and Khalawi.

Immigration

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

Education

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among Artas population is about 6.5 percent, of whom 71.8 percent are females. Of the literate population, 14.5 percent can read and write, 30 percent had elementary education, 35.5 percent had preparatory education, 14.6 percent had secondary education, and 54.1 percent completed higher education. Table 1, shows the educational level in the village of Artas, by sex, and educational attainment in 2007.

Sex	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Total
M	45	171	359	442	180	20	44	1	2	-	1264
F	115	162	330	375	156	21	36	-	-	-	1195
T	160	333	689	817	336	41	80	1	2	-	2459

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

In regards to the basic and secondary education institutions and schools in Artas in the academic year 2008/2009, there are four public schools in the village; two for boys and two for girls, run by the Palestinian Ministry of Higher Education, and no private schools. See Table 2.

There is a total number of 1261 students, 59 teachers, and 35 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 24, while the average number of students per class is approximately 36 (Directorate of Education in Bethlehem, 2009). There are also two kindergartens in Artas village (Artas Village Council, 2009).

School Name	Supervising Authority	Sex
Artas Boys High School	Government	Males
Artas Boys Elementary School		
Al Firdaws Girls High School	Government	Females
Artas Girls Elementary School		
Source: Directorate of Education in Bethlehem, 2009		

Health Status

There are some health facilities available in Artas village; a public health center, but no ambulance.

In emergency cases, residents of Artas use Bethlehem hospitals and health centers, such as: Al Hussein Hospital, which is about 3km from the village, Al Yamamah Hospital in Al Khader city, which is about 3km from the village, and the Rehabilitation Arab Society in Beit Jala, which is about 8km from the village.

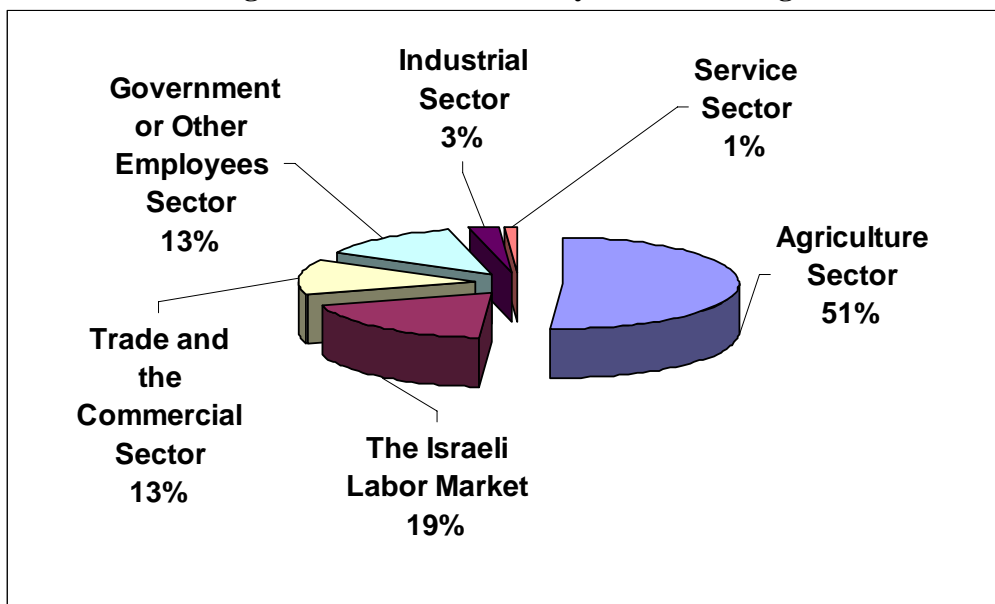
Economic Activities

The economy in Artas is dependent on several economic sectors, mainly: the agricultural sector, which absorbs 51 percent of the village workforce (See Figure1).

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

- Agriculture Sector (51%)
- Israeli Labor Market (19%)
- Government or Other Employees Sector (13%)
- Trade Sector (13%)
- Industry (3%)
- Service Sector (1%)

Figure 1: Economic Activity in Artas Village



There are some economic and industrial activities in Artas, mainly Ajjut sweet factory, carpentry and wood workshops, one bakery, three hair salons, one mechanic garage and 12 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 Artas has reached about 22 percent. It was found that the most vulnerable social groups in the town, as a result of Israeli actions, are:

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

Labor Force

According to the PCBS Population, Housing and Establishment Census-2007, 35 percent of Artas population was economically active, of whom 86.6 percent were employed, 65 percent were not economically active, 54.4 percent were students, and 34.8 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	644	55	51	750	421	2	65	7	16	511	1,264
F	102	4	5	111	446	553	63	-	21	1,083	1,195
T	746	59	56	861	867	555	128	7	37	1,594	2,459

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

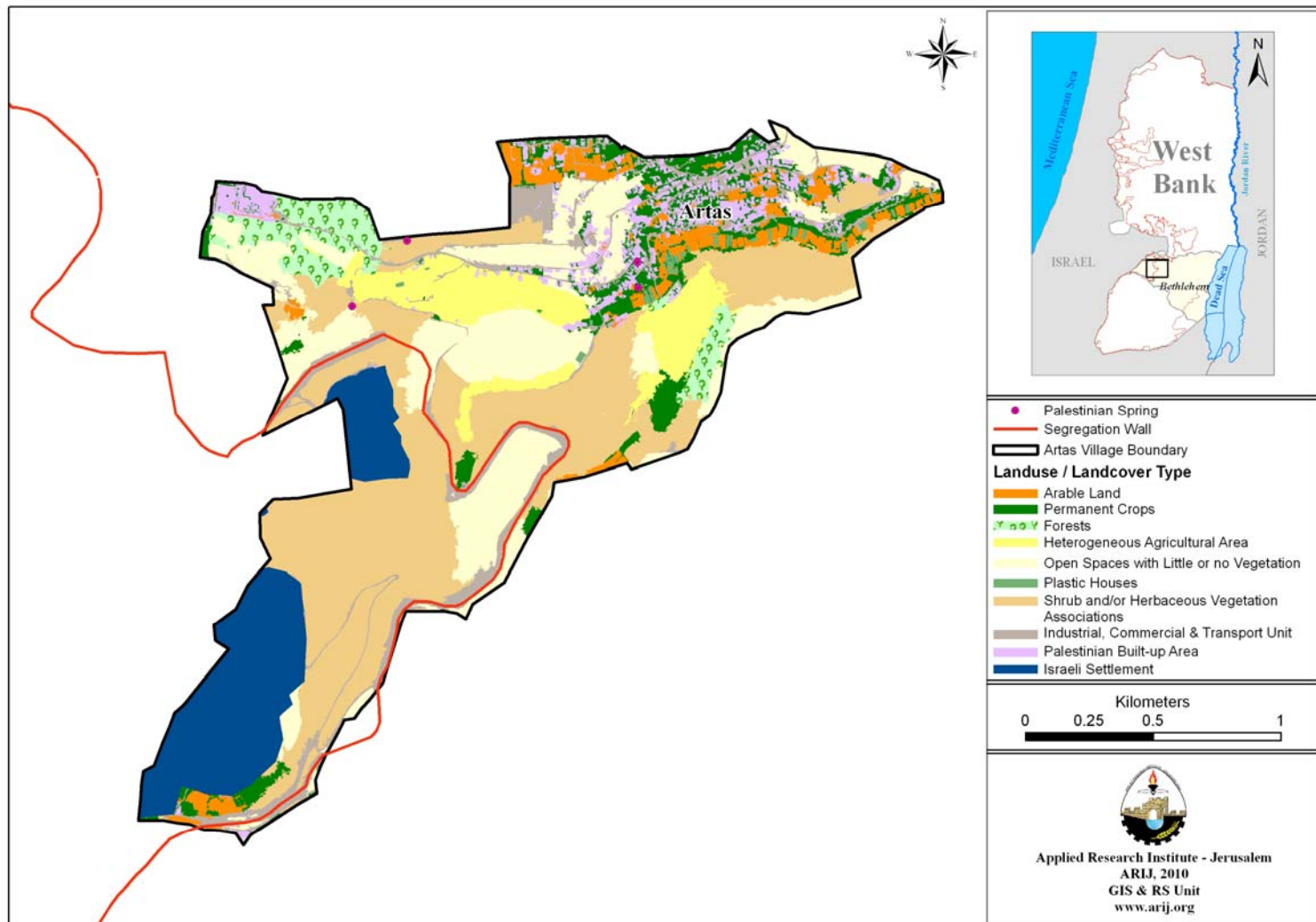
Agricultural Sector

Artas lies on a total area of about 3,514 dunums of which 2,627 dunums are considered arable land, and 180 dunums are residential land (See table 4 and map 3).

Total Area	Built up Area	Arable Land [2,627]					Area of Industrial, Commercial & Transport Unit	Area of Settlements and Military Bases
		Seasonal Crops	Permanent Crops	Greenhouses	Forests	Open Spaces and Rangelands		
3,514	180	433	243	16	147	1,788	281	426

Source: GIS unit – ARIJ, 2008

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



Agriculture activities in Artas depend mostly on rainwater. As for irrigated fields, they depend mainly on water springs.

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

Table 5: Total area of rain-fed and irrigated open cultivated vegetables in Artas 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.
9	17	0	16	0	4	0	6.5	0	6	9	49.5

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

There are also 16 dunums of land on which there are greenhouses planted with different vegetables, mainly cucumber and tomato.

And another one dunum area planted with two types of aromatic medical plants; mint and sage, fed by the public water network.

Table 6 shows the different types of fruit trees planted in the area. The most cultivated trees in the village are peach and plum trees.

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.
25	0	0	0	53	0	0	0	10	0	23	0	111	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

As for the field crops and forage in Artas, cereals, in particular wheat and barley are the most cultivated crops covering an area of about 60 dunums, while forage crops, such as bitter vetch and common vetch are the second 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
60	0	0	0	14	0	0	0	19	0	0	0	0	0	93	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

The field survey shows that most of the residents in Artas are rearing and keeping domestic animals such as sheep and goats (See Table 8).

Cows*	Sheep	Goats	Camels	Horses	Donkeys	Mules	Broilers	Layers	Bee Hives
0	135	275	0	2	10	5	0	0	0

*Including cows, bull calves, heifer calves and bulls

Source: Palestinian Ministry of Agriculture, 2007

There are about 4 kilometers of agricultural road in the village suitable for tractors and agricultural machinery.

Institutions and Services

Artas 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: (Artas Village Council, 2009)

- **Artas 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.
- **Palestinian Heritage Center:** Founded in 1993 by the Ministry of Culture, aiming at maintaining the heritage and traditions of the village through the activities and festivals it carries out.
- **Rural Women Committee:** Founded in 2007 by the Interior Ministry, and is interested in women's affairs and needs. The committee holds many community-awareness lectures.

Infrastructure and Natural Resources

Electricity and Telecommunication Services:

Artas has been connected to a public electricity network since 1974; serviced by the Jerusalem Electricity Company, which is the main source of electricity in the village. Approximately 99 percent of the housing units in the village are connected to the network, and 0.2 percent are dependent on private generators for electricity, while the remaining units (0.9%) have no source for electricity (Central Bureau of Statistics, 2007).

Furthermore, Artas is connected to a telecommunication network and approximately 33.2 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 Artas, followed by taxis with a low percentage. As for the road network in the village; there is a total of 12km of main roads; of which 4km are paved and in good condition, 3km are paved but in bad condition, and 5km are unpaved (Artas village council, 2009).

Water Resources:

Artas is provided with water by the Palestinian Water Authority (PWA), through the public water network established in 1993, about 99.3 percent of the housing units are connected to the water network, and 0.2 percent of the housing units are dependent on springs, while the remaining units (0.5%) depends on other resources for water (Central Bureau of Statistics, 2007). Based on the PWA estimations, the rate of water supply per capita in the communities provided with water is about 100 liters per day, but this rate varies from one community to another. The quantity of water supplied to Artas in 2006 was about 118,000 cubic meters/year therefore the estimated rate of water supply per capita is about 134 liters/day (PWA, 2006).

Here it should be noted that many Artas citizens do not in fact consume this amount of water because of water losses, which are about 39 percent, and which 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 Artas is 94 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 Artas are 20 rainwater harvesting cisterns and 3 water springs; one of which is used for agricultural purposes (Artas Village Council, 2009).

Sanitations:

Artas 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 Artas housing units (98.8%) use cesspits as a major means for wastewater disposal, while 1.2 percent of the housing units do not have any wastewater collection service.

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day, is approximately 265 cubic meters, or 96,725 cubic meters annually. At the individual level in the village, it is estimated that the per capita wastewater generation is approximately 75 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.

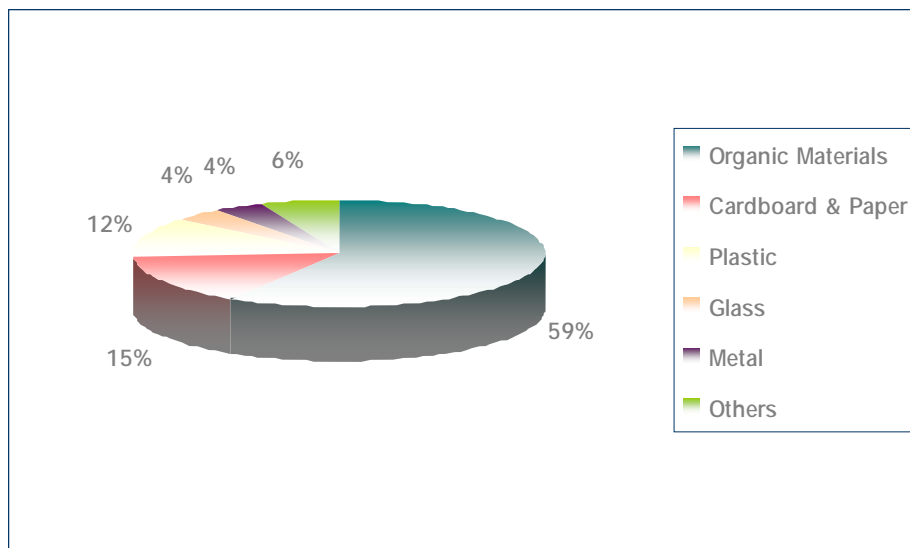
Solid Waste Management:

Artas Village Council made a deal with a contractor to manage the solid waste resulting from the citizens and commercial facilities in the village, which is currently represented by the collection and disposal of waste. Due to the fact that the process of solid waste management is costly, a monthly fee has been charged on the population served for 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 Artas 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. The village council collects the solid waste from the containers one day a week and transports it to Dar Salah dumping site, 16km from the village. The common method for solid waste treatment in Dar Salah dumping site is setting waste on fire. In the 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 Artas is 0.7kg. Thus the estimated amount of solid waste produced per day from the Artas residents is nearly 2470kg, or 910 tons per year. The major amount of household solid waste is composed of organic materials, followed by paper and cardboard, and then plastic as shown in the figure:



Environmental Conditions

Like other villages in the governorate, Artas 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; which makes PWA dependent largely on water purchase from the Israeli company Mecerot to supply the Palestinian cities and villages, representing an obstacle in the organization of water pumping and distribution among populations. PWA distributes water to various areas at an interval-basis because the amount of water available is not sufficient for everyone at the same time.
- (2) The contamination of some springs making water unsuitable for human consumption.

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 service Artas 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.

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.

Impact of the Israeli Occupation

Artas is bordered by many Palestinian villages and Israeli settlements; the Israeli Efrat settlement from the south, and from its west, Gosh Etzion settlement bloc. According to the Oslo Agreement signed between the Israeli government and the Palestinian National Authority in 1995, Artas village was divided into two parts; B and C, as shown in Table 9

Land Classification	Area (dunum)	% of the Total Area
Area A	1169	33.3
Area B	2	0.06
Area C	2343	66.7
Total Area	3514	100

Source: GIS unit –ARIJ 2009

After the Israeli occupation of the West Bank and Gaza Strip in 1967, the Israeli authorities confiscated large areas of the Palestinian land for the construction of Israeli settlements and bypass roads, in order to link these settlements to each other, in addition to the establishment of military bases and other military facilities. Artas village, like many other Palestinian villages and towns in the West Bank, was exposed to Israeli violations. In 1979, Israel began building Efrat settlement on the territory of Artas and some neighboring villages. Today, the area of Efrat settlement is 2180 dunums, of which, approximately 421 dunums had been confiscated from Artas territory, for this settlement (Table 10).

Settlement	Year of Establishment	Settlers (2008)	Total Area of the Settlement (dunum)
Efrat	1979	8200	2180
Total area	--	8200	2180

Source: GIS & Urbanization units –ARIJ 2009

Since 2000, the Israeli occupation forces have uprooted 100 stone-fruit trees.

The Segregation Wall

The Israeli racist discrimination plan, represented mainly by the construction of the Segregation Wall, has a negative and destructive effect on Artas. According to the updated Segregation Wall plan published on the web page of the Israeli Ministry of Defense in April 2007; 3.9km of the wall will be built on Artas village territory and will isolate, within the western isolation area which Israel seeks to annex through the construction of the wall, a total area of 1293 dunums (37% of the total area). The majority of this land is agricultural land and open areas, which is considered a source of income for many in the village (Table 11).

Item	Total Area (in Dunums)	Percentage of area isolated by the Wall (% of total)
Arable land	612	37
Forest and open spaces	259	
Palestinian Built-up area	1	
Israeli settlement	421	
Total	1293	

Source: GIS unit database–ARIJ 2008

Development Plans and Projects

Implemented Projects

Artas village council has implemented several development projects in Artas, during the years 2008 to 2009, as shown in Table 12.

Name of the Project	Type	Year	Donor
Pavement of Internal Roads	Roads	2008	Prime Ministry Council
Streets Lighting	Roads	2008	Prime Ministry Council
Girls Elementary School	Enlarging	2008	Cooperative Housing Foundation
Boys High School	Rehabilitation	2009	Pontifical Mission

Source: Artas Village Council, 2009

Proposed Projects

Artas 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 and pavement of agricultural and linking roads.
2. Restoration of old pools and construction of new ones.
3. Establishment of greenhouses.
4. Establishment of irrigation network in the agricultural lands that are not benefiting from springs water.
5. Construction of small agricultural and development projects.
6. Renovation of the existing irrigation canals.
7. Providing improved seeds, fertilizers and good pesticides.
8. Construction of wells to reduce the harm of indiscriminate water (floods).
9. Establishment of a supporting fund for farmers in the area of agriculture and livestock.
10. Construction of retaining walls for the agricultural lands.

Locality Development Priorities and Needs

Artas suffers from a significant shortage of infrastructure and services. Table 13 shows the development priorities and needs in the village, from the village council's point of view (Artas Village Council, 2009):

No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
Infrastructural Needs					
1	Opening and Pavement of Roads	*			10km*
2	Rehabilitation of Old Water Networks	*			4km
3	Extending the Water Network to Cover New Built up Areas	*			4km
4	Construction of New Water Networks	*			4km
5	Rehabilitation/ Construction of New Wells or Springs			*	
6	Construction of Water Reservoirs			*	
7	Construction of a Sewage Disposal Network	*			5km
8	Construction of a New Electricity Network	*			2km
9	Providing Containers for Solid Waste Collection		*		30 container
10	Providing Vehicles for Collecting Solid Waste			*	
11	Providing a Sanitary Landfill			*	
Health Needs					
1	Building of New Clinics or Health Care Centres		*		1 clinic
2	Rehabilitation of Old Clinics or Health Care Centres		*		1 clinic
3	Purchasing of Medical Equipment and Tools	*			
Educational Needs					
1	Building of New Schools	*			elementary
2	Rehabilitation of Old Schools			*	
3	Purchasing of New Equipment for Schools	*			secondary
Agriculture Needs					
1	Rehabilitation of Agricultural Lands	*			300 dunums
2	Building Rainwater Harvesting Cisterns	*			60 cistern
3	Construction of Barracks for Livestock			*	
4	Veterinary Services			*	
5	Seeds and Hay for Animals		*		
6	Construction of New Greenhouses			*	
7	Rehabilitation of Greenhouses	*			25 greenhouses
8	Field Crops Seeds	*			
9	Plants and Agricultural Supplies	*			

*2km is a main road, 3km internal road and 5km agricultural road.

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