

Wadi an Nis 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"; a 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 unsecured 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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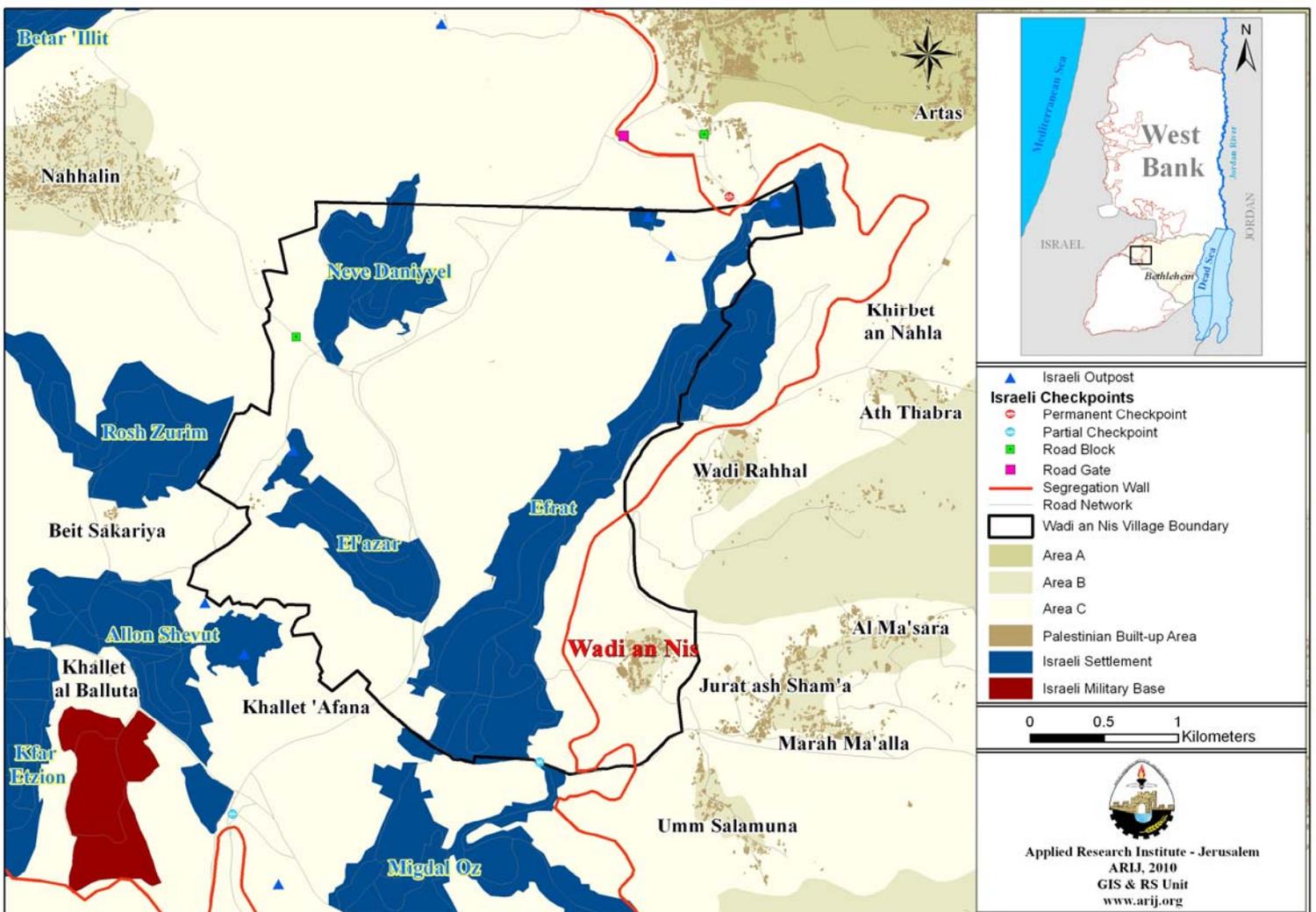
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Wadi an Nis Village Profile

Location and Physical Characteristics

Wadi an Nis is a Palestinian village in Bethlehem Governorate located at 7km (horizontal distance) south-west of Bethlehem City. Wadi an Nis is bordered by Jurat Ash Sham'a village to the east, Wadi Rahhal village to the north, Efrat settlement to the west, and Umm Salamuna village to the south (See map 1).

Map 1: Wadi an Nis location and borders



Wadi an Nis is located at an altitude of 903m above sea level with a mean annual rainfall of 660mm. The average annual temperature is 16° C, and the average annual humidity is about 61 percent (ARIJ GIS, 2009).

Since 1996, Wadi an Nis has been governed by a village council which is currently administrated by five members appointed by the Palestinian Authority. The village council owns a permanent headquarters, a vehicle to collect solid waste, a tractor, and a small Hummer.

It is the responsibility of the village council to provide a number of services to the residents of Wadi an Nis, 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.

History

Wadi an Nis village was named after the Porcupine animal (An Nis), because of its frequent presence in the valley, where the village was established.

Wadi an Nis village dates back to 1901, and the Wadi an Nis village residents origin goes back to Bethlehem city, Al Fawaghra neighborhood in particular.

Photo f Wadi an Nis

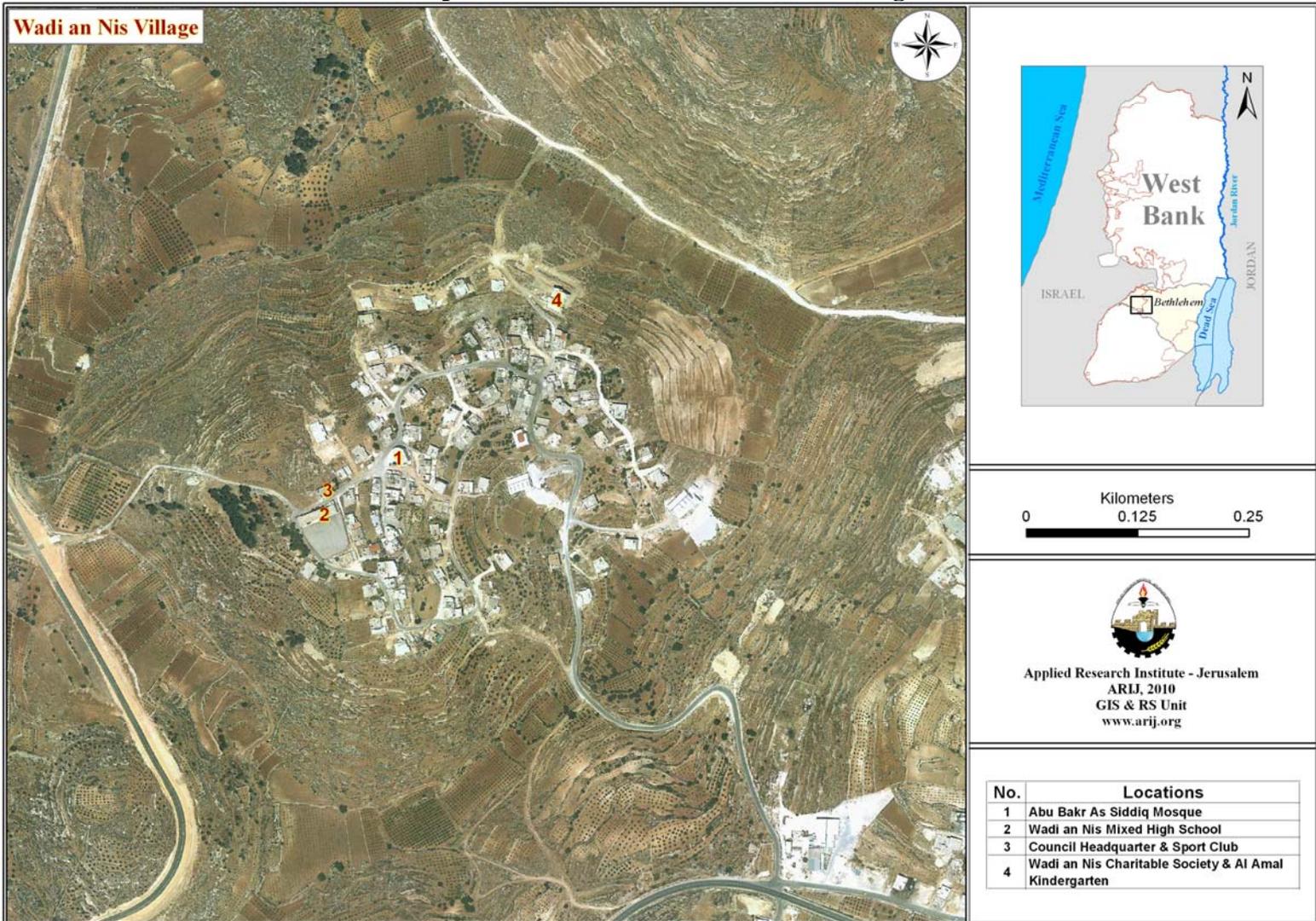


Religious and Archaeological Sites

In terms of religious establishments, there is only one mosque in Wadi an Nis: Abu Bakr As Siddiq Mosque.

As for the archaeological sites in the village, there are several: ‘Ola Monastery, the Groves Valley, and Khirbet Maree’ which is not taking any advantage of tourism. (See map 2).

Map 2: Main locations in Wadi an Nis village



Population

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of Wadi an Nis in 2007 was 772; 394 of whom are males and 378 of whom are females. There are 119 households living within 132 housing units.

Age Groups and Gender

The General Census of Population and Housing carried out by PCBS in 2007 showed that the distribution of age groups in Wadi an Nis was as follows: 42 percent are less than 15 years, 53 percent are between 15 - 64 years, and 5 percent are 65 years and older. Data also showed that the sex ratio of males to females in the village is 104:100, meaning that males constitute 51 percent of the population, and females constitute 49 percent.

Families

The inhabitants of Wadi an Nis are predominantly composed from one main family: Abu Hammad.

Education

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among Wadi an Nis population is about 23 percent, of whom 57.2 percent are females. Of the literate population, 26.4 percent can read and write, 42 percent had elementary education, 29.7 percent had preparatory education, 8.9 percent had secondary education, and 1.3 percent completed higher education. Table 1, shows the educational level in the village of Wadi an Nis, by sex, and educational attainment in 2007.

Sex	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Total
M	50	66	67	57	16	-	3	-	-	-	260
F	67	37	63	59	19	-	2	-	-	-	247
T	117	103	130	116	35	-	5	-	-	-	507

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

In regards to the basic and secondary education institutions and schools in Wadi an Nis, during the academic year 2008/2009, there is only one public mixed school in the village run by the Palestinian Ministry of Higher Education, and no private schools.

There are 328 students, 16 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 21, while the average number of students per class is approximately 30.

There is also one kindergarten in Wadi an Nis village run by a charitable organization which has a total of 25 children (Wadi an Nis Village Council, 2009).

Health Status

Wadi an Nis lacks health facilities such as governmental or private health centers and ambulances. In emergency cases, residents of Wadi an Nis use Tuqu' and Bethlehem health centers, such as: Tuqu' society, which is about 5km from the village, Al Yamamah hospital in Al Khader city, about 7km from the village, and Al Hussein hospital in Beit Jala, about 9km from the village.

The most major problems that face the health sector in Wadi an Nis village are:

1. The absence of a health center in the village to provide health services to its residents.
2. The long distances between the village and health centers in the neighboring villages.
3. The absence of an ambulance in the village for emergency cases.
4. Lack of training of first aid competent cadres in the village, for emergencies.

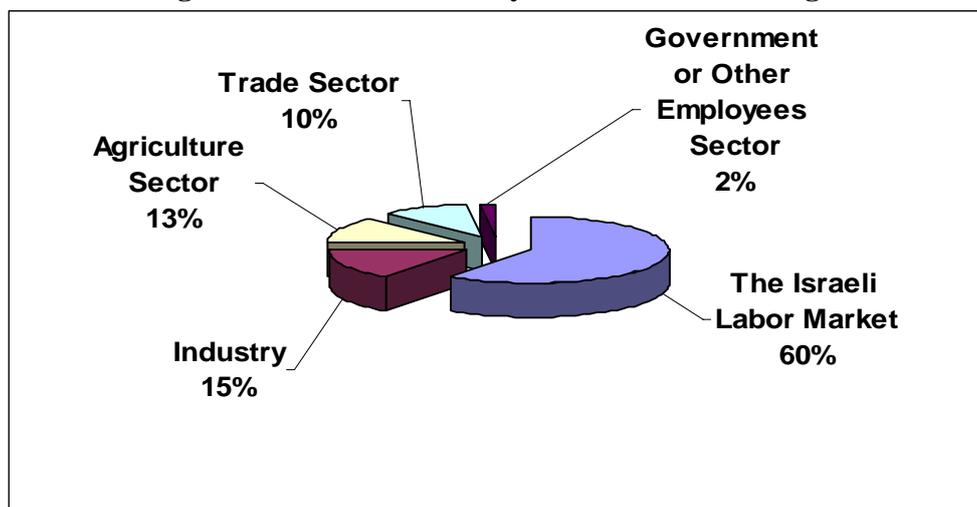
Economic Activities

The economy in Wadi an Nis is dependent on several economic sectors, mainly: the Israeli labor market, which absorbs 60 percent of the village workforce (See Figure1).

The results of a field survey for the distribution of labor by economic activity Wadi an Nis are the following:

- Israeli Labor Market (60%)
- Industry (15%)
- Agriculture Sector (13%)
- Trade Sector (10%)
- Government or Other Employees Sector (2%)

Figure 1: Economic Activity in Wadi an Nis Village



There are a few businesses and industrial parks in Wadi an Nis, mainly: stone and marble industry, in addition to two workshops; one metal and one car mechanic.

As a result of the Israeli occupation and restrictions, the economical status of the population has severely declined, as many citizens have lost their jobs main source of income, and became unemployed, forcing them to work in the service sector, agricultural activities and farming their lands, as a last resort for getting a minimum income.

The unemployment rate in Wadi an Nis has reached about 55 percent. It was found that the most vulnerable social groups in the town, as a result of Israeli actions, are:

1. Workers in Agricultural activities
2. Workers in the Trade Sector
3. Workers in Industry

Labor Force

According to the PCBS Population, Housing and Establishment Census-2007, 32 percent of Wadi an Nis population was economically active, of whom 66 percent were employed, and 66.3 percent of the population was not economically active, 48.2 percent of whom were students, and 45.5 percent were housekeepers (See table 2).

Table 2: Wadi an Nis population (10 years and above) by sex and employment status-2007

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	105	53	2	160	76	-	16	-	2	94	260
F	2	-	-	2	86	153	3	-	-	242	247
T	107	53	2	162	162	153	19	-	2	336	507

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

Agricultural Sector

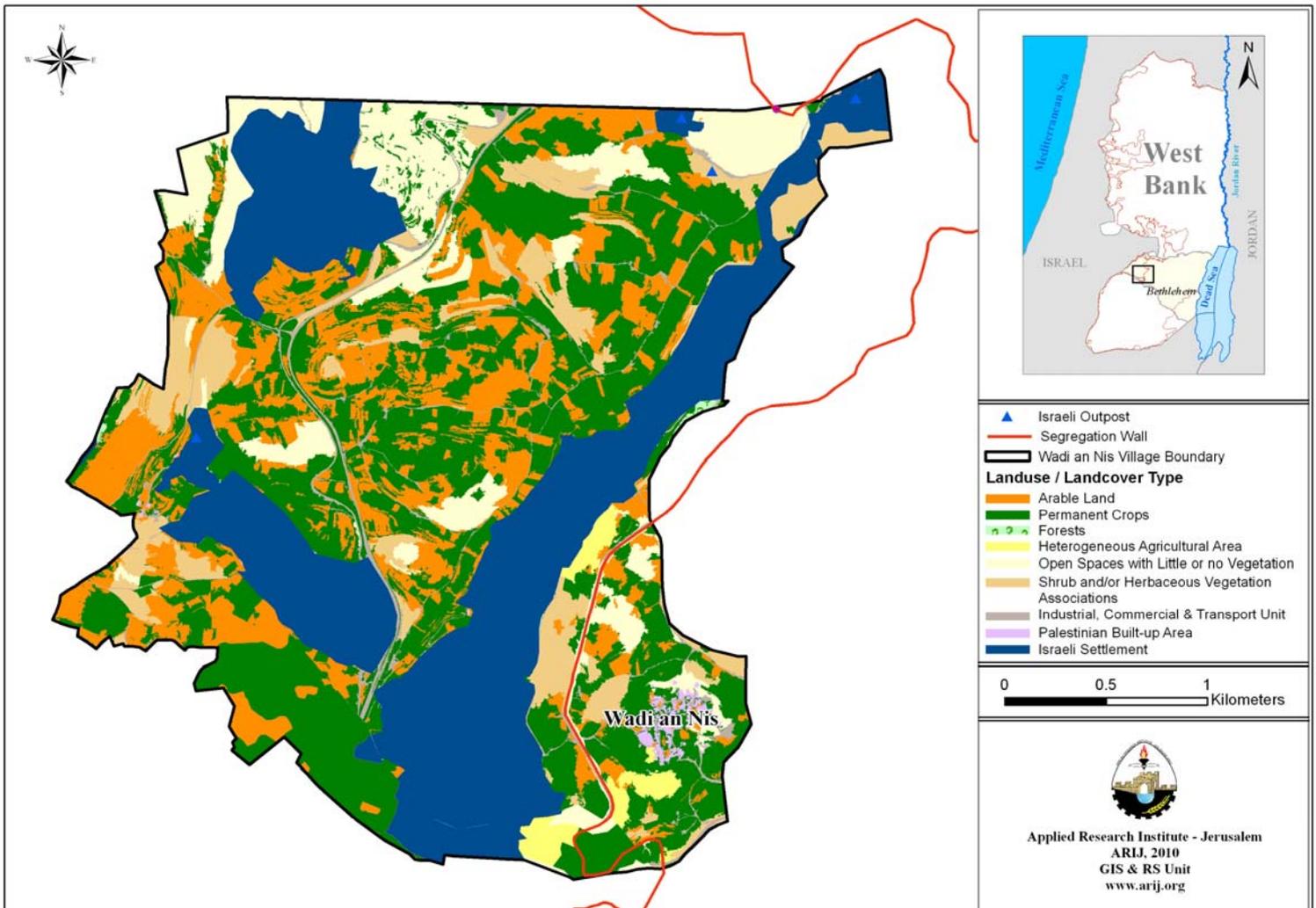
Wadi an Nis lies on a total area of about 10,437 dunums of which 7,324 dunums are considered arable land, and 47 dunums are residential land (See table 3 and map 3).

Table 3: Land Use in Wadi an Nis village (dunum)

Total Area	Built up Area	Arable Land (7,324)					Area of Industrial, Commercial & Transport Unit	Area of Settlements and Military Bases
		Seasonal Crops	Permanent Crops	Greenhouses	Forests	Open Spaces and Rangelands		
10,437	47	2,064	3,392	0	13	1,855	263	2,803

Source: GIS unit – ARIJ, 2008

Map 3: Land use/land cover and Segregation Wall in Wadi an Nis Village



Agricultural production in Wadi an Nis depends mostly on rainwater. As for irrigated fields, they depend on the public water network and domestic harvesting cisterns.

Table 4 shows the different types of rain-fed and irrigated open-cultivated vegetables in Wadi an Nis. 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.
11	9	0	3.5	0	2.5	0	0.5	0	2	11	17.5

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

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

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.
60	0	0	0	2	0	0	0	0	0	480	0	542	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

As for the field crops and forage in Wadi an Nis, cereals, in particular wheat and barley, are the most cultivated crops covering an area of about 35 dunums, while dry legumes, such as chickpeas and lentil are the second most cultivated (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
35	0	0	0	12	0	0	0	17	0	0	0	0	0	64	0

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

The field survey shows that most of the residents in Wadi an Nis rear and keep domestic animals such as sheep and goats (See Table 7).

Cows*	Sheep	Goats	Camels	Horses	Donkeys	Mules	Broilers	Layers	Bee Hives
0	163	556	0	2	8	13	0	0	0

*Including cows, bull calves, heifer calves and bulls

Source: Palestinian Ministry of Agriculture, 2007

There is about 12 kilometers of agricultural road in the village suitable for animals only.

Institutions and Services

Wadi an Nis does not have many local institutions and organizations besides the village council, and one charitable organization: (Wadi an Nisa Village Council, 2009)

Wadi an Nis 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.

Charitable Organization: Founded in 2002, and is interested in all the cultural, social and charitable issues.

Infrastructure and Natural Resources

Electricity and Telecommunication Services:

Wadi an Nis has been connected to a public electricity network since 1982; serviced by Jerusalem Electricity Company, which is the main source of electricity in the village. Approximately 98.3 percent of the housing units in the village are connected to the network, while the source of electricity is unknown for the remaining units (1.7%) (Central Bureau of Statistics, 2007).

Furthermore, Wadi an Nis is connected to a telecommunication network and approximately 2.6 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 main means of transportation in Wadi an Nis. As for the road network in the village; there is a total of 3km of main paved roads which are in good condition, and a total of 9km of secondary roads; 2km of which are paved and in good condition, and 7km which are unpaved (Wadi an Nis village council, 2009).

Water Resources:

Wadi an Nis is provided with water by the West bank Water Department, through the public water network established in 1986. About 98.3 percent of the housing units are connected to the water network, while the source of water supply is unknown for the remaining units (1.7%) (Central Bureau of Statistics, 2007). The quantity of water supplied to Wadi an Nis in 2006 was about 10000 cubic meters/year, therefore the estimated rate of water supply per capita was about 37 liters/day (PWA, 2006).

Here it should be noted that no Wadi an Nis citizen in fact consumes this amount of water because of water losses, which is about 39 percent, and which usually occurs 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 Wadi an Nis is 23 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.

Additionally, Wadi an Nis has 40 rainwater harvesting cisterns (Wadi an Nis Village Council, 2009).

Sanitation:

Wadi an Nis lacks a public sewage network therefore most of the population uses cesspits as a mean 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 Wadi an Nis housing units (98.3%) use the cesspits as a major means of wastewater disposal, while the mean for wastewater disposal is unknown for the remaining units (1.7%).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day is approximately 14.2 cubic meters, or 5,183 cubic meters annually. At the individual level, it is estimated that the per capita wastewater generation is approximately 19 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 public health.

Solid Waste Management:

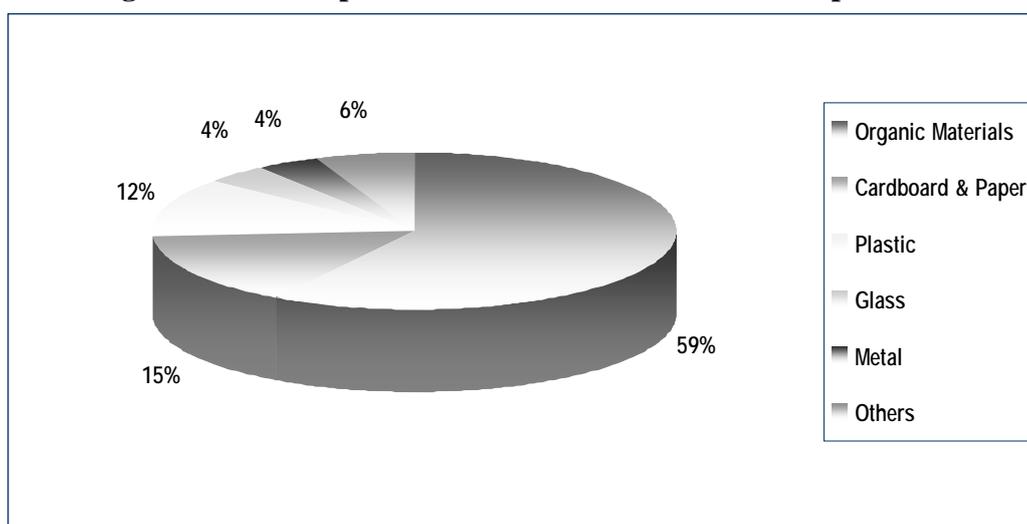
The Joint Services Council of the Southern Countryside is considered the official body responsible for managing solid waste, i.e. solid waste collection and disposal, generated from the citizens and establishments in the village. Due to the fact that the process of solid waste management is costly, a monthly fee has been charged to 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. In general the solid waste management in Bethlehem governorate and in other West Bank governorates is based on the voluntary contributions of donor countries.

Most of the population in Wadi an Nis benefits from the solid waste services, where waste is collected from households, institutions, shops, and public squares in plastic bags and then transferred to 18 containers, spread throughout the neighborhood, with a capacity of 1.1 cubic meter each. The Joint Services Council collects the solid waste from the containers two days a week and transports it to Dar Salah dumping site in Bethlehem governorate, 25km from Wadi an Nis. The common method for solid waste treatment in Dar Salah 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. Household waste makes the largest amount of total solid waste, contributing to about 45-50 percent of the total volume of solid waste.

The daily per capita rate of solid waste production in Wadi an Nis is 0.7kg. Thus, the estimated amount of solid waste produced per day from the Wadi an Nis residents is nearly 520kg, or 190 tons annually. The major amount of household solid waste is composed of organic materials, followed by paper, cardboard, then plastic as shown in the figure:

Figure 2: The components of the household solid waste produced



Environmental Conditions

Like other villages in the governorate, Wadi an Nis 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 due to the old and worn out network.

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. All of this 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 Wadi an Nis 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 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 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.

Impact of the Israeli Occupation

Wadi an Nis is located 6.8km south of Bethlehem. It is bordered by Marah Ma'alla village from the north, Jurat ash Sham'a and Al Ma'sara villages from the east, Umm Salamuna village from the south, Efrat and Migdal Oz settlements from the west, and the racist Segregation Wall, which Israel started to construct in June, 2002.

On September 13, 1993, the Palestine Liberation Organization and Israel signed the Declaration of Principles Agreement, which provided a transitional period of 5 years. On the fourth of May 1994, the first Oslo Agreement was signed (Gaza and Jericho) where parts of the West Bank and Gaza Strip were transferred to the Palestinian national sovereignty, and a year and a half later on September 28, 1995 Oslo II agreement was signed, where new areas of the West Bank and Gaza Strip were transferred to the Palestinian national sovereignty.

According to Oslo Agreement, 102 dunums (1% of the total area of the village) were classified as area B, and the remaining part of the village, 10335 dunums (99% of the total area) were classified as area C. The majority of the agricultural and open areas lie in area C, which is under full Israeli control (Table 8).

Land Classification	Area (dunum)	% of the Total Area
Area A	0	0
Area B	102	1
Area C	10335	99
Total Area	10437	100

Source: GIS unit –ARIJ 2009

Wadi an Nis village is subjected to various blockades such as, one permanent and one mobile checkpoint, an iron gate, and to earth mounds at the village entrances (Wadi an Nis Village Council, 2009).

Israeli settlement activities in Wadi an Nis village

After the Israeli occupation of the West Bank and Gaza Strip in 1967, the Israeli authorities confiscated large areas of the Palestinian territories for the construction of Israeli settlements, bypass roads and military bases. Wadi an Nis village, as many other Palestinian villages and towns in the West Bank, was exposed to Israeli violations over the continuous years of Israeli occupation, namely: 2808 dunums of the village land was confiscated for the construction of four Israeli settlements, all located in the Gush Etzion block (Table 9).

Settlement	Year of Establishment	Settlers (2008)	Total Area of Settlement	Seized land of the Village (dunum)
Efart	1979	8200	2180	1713
El'azar	1975	1547	536	536
Rosh Zurim	1969	485	893	3
Neve Daniyyel	1982	1760	584	556
Total		11992	4193	2808

Source: GIS unit & Urbanization unit –ARIJ 2009

The Segregation Wall

The recent amendment of the racist Israeli Segregation Wall plan in the West Bank, published on the Israeli Ministry of Defense webpage in April, 2007, showed that 2.86km of wall will be built on Wadi an Nis village territory and will isolate 9470 dunums (90.7 percent of the total area of the village) within the western separation area, that will be annexed to Israel through the construction of the wall, which will include eleven Israeli settlements (Gush Etzion Settlements) and nine Palestinian communities (Battir, Husan, Nahhalin, Al Walaja, Wadi Fukin, Al Jab'a, Khirbet 'Afana, Khirbet Al Balluta, Beit Sakariya). The construction of the wall began in 2007, when the Israeli bulldozers razed agricultural lands and uprooted horticultural trees in preparation for the construction of the wall, causing severe damages and material losses to the agricultural sector.

Moreover, the Israeli bypass roads no. 3698 and no. 60 extend for about 5.6km on Wadi an Nis village territory.

Development Plans and Projects

Implemented Projects

No development projects were implemented during the last years to serve the village.

Proposed Projects

Wadi an Nis 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 a Joint Service Council for the southern countryside.
2. Expansion of the south villages' structural schemes
3. Supporting agricultural production inputs, taking care of livestock, and construction of cooperative societies in the region.
4. Construction of rainwater harvesting cisterns and water reservoir.
5. Establishment of sewage network or wastewater treatment plant.
6. Providing the area with ground communications network.
7. Providing street lighting.
8. Building youth and women's capacities in the area.
9. Finishing Wadi an Nis playing field.
10. Construction of a park in the area.

Locality Development Priorities and Needs

Wadi an Nis suffers from significant infrastructure and service shortages. Table 10 shows the development priorities and needs in the village, according to the village council point of view: (Wadi an Nis Village Council, 2009)

Table 10: Development Priorities and Needs in Wadi an Nis					
No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
Infrastructural Needs					
1	Opening and Pavement of Roads	*			9.7km *
2	Rehabilitation of Old Water Networks	*			5km
3	Extending the Water Network to Cover New Built up Areas	*			2km
4	Construction of New Water Networks	*			5km
5	Rehabilitation/ Construction of New Wells or Springs			*	
6	Construction of Water Reservoirs	*			5000m ³
7	Construction of a Sewage Disposal Network		*		10km
8	Construction of a New Electricity Network		*		2km
9	Providing Containers for Solid Waste Collection	*			25 containers
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			*	
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				
Agriculture Needs					
1	Rehabilitation of Agricultural Lands	*			70 dunums
2	Building Rainwater Harvesting Cisterns	*			15 cisterns
3	Construction of Barracks for Livestock	*			5 barracks
4	Veterinary Services	*			
5	Seeds and Hay for Animals	*			
6	Construction of New Greenhouses	*			
7	Rehabilitation of Greenhouses			*	
8	Field Crops Seeds	*			
9	Plants and Agricultural Supplies	*			

*1.5km is a main road, 1.2km internal road and 7km agricultural road

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