# **Ad Doha City Profile**





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# **Acknowledgments**

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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.

**Bethlehem Governorate** 

Palestinian Localities Study

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# **Ad Doha City Profile**

# **Location and Physical Characteristics**

Ad Doha is a Palestinian city in Bethlehem Governorate located at 2.5km (horizontal distance) west of Bethlehem City. Ad Doha is bordered by Bethlehem city to the east, Beit Jala city to the north, Al Khader town to the west, and Ad Duheisha camp to the south (See map 1).



### Map 1: Ad Doha location and borders

Ad Doha is located at an altitude of 830m above sea level with a mean annual rainfall of 613mm. The average annual temperature is 16  $^{\circ}$  C, and the average annual humidity is about 60.6 percent (ARIJ GIS, 2009).

Since 1996, Ad Doha has been governed by a municipal council, which is currently administrated by 13 members appointed by the Palestinian Authority. There are also 23 employees working in the council. The municipality owns a permanent headquarters, a vehicle to collect solid waste, and two private cars.

It is the responsibility of the Municipality to provide a number of services to the residents of Ad Doha, including:

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

## History

The name Ad Doha came more than 30 years ago, where the territories of Ad Doha were part of Beit Jala city. In the year 1977, Beit Jala mayor visited the state of Qatar for the uniting of the Palestinian municipalities with the Arab municipalities, and through this uniting, Qatar government provided a generous amount of money for Beit Jala city. In recognition for Qatar state contributions, the municipal council called the new area Ad Doha, according to Ad Doha city, the capital of Qatar. After that, Ad Doha city was founded and a municipal council, independent of Beit Jala municipality, was established in 1996.

Ad Doha residents are originally from the Palestinian refugees who came from Bethlehem and Hebron Governorates' camps.



### Photo of Ad Doha

### **Religious and Archaeological Sites**

In terms of religious establishments, there are four mosques in Ad Doha: Al Khulafa' Ar Rashideen Mosque, Zaid Ben Thabit Mosque, Abu 'Ubeida Mosque, and Abu Sadeer Mosque.

There are no archaeological sites in Ad Doha city.



#### Map 2: Main locations in Ad Doha city

# Population

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of Ad Doha in 2007 was 9,753; of whom 4,950 are males and 4,803 are females. There are 1,849 households living in 2,220 housing units.

It is worth mentioning that the population growth in Ad Doha city is not limited to natural increase, but to the continuous arrival of newcomers to Ad Doha city, because of the numerous housing units in it, and its location in the center of Bethlehem governorate.

### Age Groups and Gender

The General Census of Population and Housing carried out by PCBS in 2007 showed the distribution of age groups in Ad Doha is as follows: 40 percent are less than 15 years, 53.3 percent are between 15 - 64 years, 2.2 percent are 65 years and older, and 4.5 percent unknown. Data also showed that the sex ratio of males to females in the city is 103:100, meaning that males constitute 50.8 percent of the population, and females constitute 49.2 percent of the population.

### Families

Ad Doha residents are composed of a large combination of more than 40 Palestinian villages, that have immigrated since the 1948 war, inside the Green Line, all coming from Bethlehem and Hebron Governorates camps.

## Education

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among Ad Doha population is about 4 percent, of whom 64 percent are females. Of the literate population, 11.9 percent can read and write, 22.1 percent had elementary education, 29.1 percent had preparatory education, 19.2 percent had secondary education, and 17.4 percent completed higher education. Table 1, shows the educational level in the city of Ad Doha, by sex, and educational attainment in 2007.

Та	Table 1: Ad Doha population (10 years and above) by sex and educational attainment												
S E x	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	Bachelor	Higher Diploma	Master	PhD	Total		
Μ	92	367	702	916	591	162	303	17	48	15	3220		
F	163	361	647	868	581	169	294	5	21	3	3147		
Т	255	728	1349	<b>1784</b>	1172	358	<b>597</b>	22	69	18	6367		

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

In regards to the basic and secondary education institutions and schools in Ad Doha in the academic year 2008/2009, there are seven schools in the city; two for boys, two for girls and three mixed schools; four schools of which are run by the Palestinian Ministry of Higher Education, and the other three schools are privately run (table 2).

In Ad Doha there is a total number of 1605 students, 71 teachers, and 53 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 23, while the average number of students per class is approximately 31.

Table 2: The Schools in Ad Doha by name, stage, sex, and supervising authority								
School Name	Supervising Authority	Sex						
Al Khulafa' Ar Rashideen Boys								
Elementary School	Government	Male						
Al Khulafa' Ar Rashideen Boys								
High School								
Ad Doha Girls High School								
Al Khulafa' Ar Rashideen Girls	Government	Female						
Elementary School								
As Sanabil Model School								
Ad Doha Elementary School	Private	Mixed						
An Naka' Islamic School								
Source: Directorate of Education in Bethleh	nem, 2009							

Furthermore, there are three kindergartens in Ad Doha; two are privately run and one is run by a charitable organization. Table 3 shows the kindergartens according to their names and supervising authority (Ad Doha Municipality, 2009)

Table 3: The Kindergartens in Ad Doha by name and supervising authority						
Kindergarten Name Supervising Authority						
Al Amal Kindergarten	Charitable Organization					
Al Firdaws Kindergarten	Private					
Al Wa'd Kindergarten	Private					
Source: Ad Doha Municipality, 2009						

# **Health Status**

There are no health facilities available in Ad Doha city; as there is only one private medical center for physiotherapy and three pharmacies.

In emergency cases, residents of Ad Doha use Bethlehem hospitals and health centers, such as: Beit Jala Governmental Hospital (Al Hussein), about 4km from the city, Ad Duheisha Clinic in Ad Duheisha Camp, 2km from the city, Bethlehem Clinic, which is about 4km from the city, Bethlehem Health Clinic, subordinated by the Ministry of Health, which is about 5km from the city, and Al Yamamah Hospital in Al Khader city, about 2km from the city.

The Health sector faces many problems, mainly: the absence of a health center in the city.

# **Economic Activities**

The economy in Ad Doha is dependent on several economic sectors, mainly: the government and private employees sector, which absorbs 40 percent of the city workforce (See Figure 1).

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

- Government or Private Employees Sector (40%)
- Trade Sector (20%)
- Israeli Labor Market (15%)
- Service Sector (15%)
- Industry (10%)



Figure 1: Economic Activity in Ad Doha City

#### **Bethlehem Governorate**

There are some economic and industrial activities in Ad Doha, mainly; stone and marble industry, as there are more than 24 quarries, in addition to 40 different workshops (Blacksmith, carpentry, and aluminum), one butcher, four bakeries, 60 different services stores, and 30 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.

The unemployment rate in Ad Doha has reached about 17 percent, and the economical groups most affected by the Israeli restrictions were:

1. Workers in the industry sector; in particular the stone and marble sector.

2. Former workers in Israeli.

### Labor Force

According to the PCBS Population, Housing and Establishment Census-2007, 35.3 percent of Ad Doha labor force was economically active, of whom 89 percent were employed, 64.3 percent were not economically active, 55.1 percent were students, and 34.8 percent were housekeepers (See table 4).

Table 4: Ad Doha population (10 years and above) by sex and employment status-2007											
S E X		Economical									
	Employed	Currently Unemployed	Unemployed (Never worked)	Total	Students	House- keeping	Unable to work	Not working & Not looking for work	Other	Total	- Total
Μ	1,642	127	79	1848	1,102	4	172	29	51	1,358	3,220
F	357	14	27	398	1,154	1,419	121	10	32	2,736	3,147
Т	1,999	141	106	2246	2,256	1,423	293	39	83	4,094	6,367

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

# **Agricultural Sector**

Ad Doha lies on a total area of about 1,750 dunums of which 911 dunums are considered arable land, and 333 dunums are residential land (See table 5 and map 3).

#### **Bethlehem Governorate**

Table 5	Table 5: Land Use in Ad Doha city (dunum)													
Total	Built				Area of Industrial,	Area of Settlements								
Area	up Area	Seasonal Crops	Permanent Crops	Greenhouses	Forests	Open Spaces and Rangelands	Commercial & Transport Unit	and Military Bases						
1,750	333	279	496	0	7	129	506	0						
	a	<b>GTG</b> .	1 5 11 6 0 0 0	•	•	•	•							

Source: GIS unit – ARIJ, 2008



### Map 3: Land use/land cover and Segregation Wall in Ad Doha City

Agriculture production in Ad Doha depends mostly on rainwater. As for irrigated fields, they depend on domestic harvesting cisterns.

Table 6 shows the different types of rain-fed and irrigated open-cultivated vegetables in Ad Doha. The most common crop cultivated within this area is tomato; there is also a half dunum of greenhouses planted with tomato.

	Table 6: Total area of rain-fed and irrigated open cultivated vegetables in Ad Doha city         (dunum)											
Fru veget	uity ables	Lea veget	afy table	Gre legu	een mes	Bu	lbs	Otl veget		Tota	al area	
RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	RF	Irr.	
0	4	0	1	0	0	0	0	0	5	0	10	

Rf: Rain-fed, Irr: Irrigated

Source: Palestinian Ministry of Agriculture, 2007

The field survey shows that most of the residents in Ad Doha are rearing and keeping domestic animals such as sheep, goats, broiler chickens, and bees (See Table 7).

Table 7	Table 7: Livestock in Ad Doha city												
Cows*	Sheep	Goats	Camels	Horses	Donkeys	Mules	Broilers	Layers	Bee				
									Hives				
0	347	266	0	0	0	0	2500	0	60				

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

## **Institutions and Services**

Ad Doha 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: (Ad Doha Municipality, 2009)

- Ad Doha Municipality: Founded by the Ministry of Local Government with the goal of taking care of all the issues in the city and providing all kinds of services to its population.
- **Youth Sport Club**: Founded in 2000 by a local committee and is interested in the sport activities in the city.
- Woman Development Center: Founded in 2005, with the goal of taking care of all women's affairs and issues and providing training courses and guidance.
- Noor Al Mustakbal Center: Founded in 2009 with the goal of taking care of all children and youth's issues and needs.
- Noor Al Bara'a Center for Vocal, Linguistic and Auditory Rehabilitation: Founded in 2001 in order to provide appropriate rehabilitation services for destitute children because of the different conditions of hearing and speech disability.
- 'Aayat Women Center
- Watan Youth Center.

# Infrastructure and Natural Resources

### **Electricity and Telecommunication Services:**

Ad Doha has been connected to a public electricity network since 1975; served by Jerusalem Electricity Company, which is the main source of electricity in the city. Approximately 97.5 percent of the housing units in the city are connected to the network, and 0.1 percent are dependent on private generators, while the source of electricity is unknown for the remaining units (2.4%) (Central Bureau of Statistics, 2007).

Furthermore, Ad Doha is connected to a telecommunication network and approximately 58.5 percent of the housing units within the city boundaries are connected to phone lines.

### **Transportation Services:**

Private cars are the main means of transportation in Ad Doha. As for the road network in the city; there are a total of 8km of main roads; 5km are paved and in good condition and 3km are paved but in bad condition. There are also a total of 17km of secondary roads; of which 5km are paved and in good condition, 8km are paved but in bad condition, and 4km are unpaved roads (Ad Doha municipality, 2009).

### Water Resources:

Ad Doha is provided with water by Palestinian Water Authority (PWA), through the public water network established in 1970, and about 97.3 percent of the housing units are connected to the water network, 0.1 percent are dependent on rainwater, 0.1 percent are dependent on water tanks, and 0.1 percent are dependent on other water resources, while the source of water supply is unknown for the remaining units (2.4%) (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 Ad Doha in 2006 was about 223,000 cubic meters/year, therefore the estimated rate of water supply per capita is about 65 liters/day (PWA, 2006).

Here it should be noted that many Ad Doha citizens do not in fact consume this amount of water due to water losses, which are about 39 percent. The loses 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 Ad Doha is 40 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.

Ad Doha has also a public water tank with 3,000 cubic meter capacity, and its capacity can meet the city's need of water for six days.

#### Sanitation:

Ad Doha city has a 25km public sewage network, established since 2000. The end of the network is connected to Beit Jala private sewage network, where waste water is pumped from Bir Onah pumping station to the West Jerusalem private sewage network. According to the results of Community Survey conducted by the PCBS in 2007 and the data provided from PWA, the majority of Ad Doha housing units (94.4%) use the sewage network as a major means for wastewater disposal, 2.6 percent use cesspits and 0.1 percent of the housing units have no means for wastewater disposal, while it is unknown for the remaining units (2.9%).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day, is approximately 300 cubic meters, or 109,500 cubic meters annually. At the individual level in the city it is estimated that the per capita wastewater generation is approximately 32 liters per day. The estimated quantity of wastewater collected through the sewerage network per day, is about 284 cubic meters per day, or 103,660 cubic meters annually. The wastewater resulting from the cesspits are 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:

Ad Doha Municipality 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 city, 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 240 NIS/year. However, the collected fees are not considered sufficient for a good management of solid waste.

Most of the population in Ad Doha benefits from the solid waste services, where waste is collected from households, institutions, shops, and public squares in plastic bags and then and then transferred to 162 containers with a capacity of 1.1 cubic meter each. The municipality collects the solid waste from the containers five days a week and transports it to Al 'Eizariya dumping site, 25km from Ad Doha. The common method for solid waste treatment in Al 'Eizariya dumping site is setting waste on fire or sometimes burying it. In the future, the solid waste will be disposed in Al Maniya landfill that will be established in Bethlehem governorate. It should be mentioned here that household hazardous waste, industrial, and commercial solid waste is collected with other non-hazardous municipal waste and dumped into the same landfill with the absence of any special system for separation and/or collection. The largest volume of solid waste.

The daily per capita rate of solid waste production in Ad Doha is 1.05kg. Thus the estimated amount of solid waste produced per day from the Ad Doha residents is nearly 10.2 tons, or 3723 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 the figure below:



Figure 2: The components of the household solid waste produced

## **Environmental Conditions**

Like other cities and villages in the governorate, Ad Doha 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 city 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) High rate of water losses due to the old network which is in need of rehabilitation.

### 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 cannot afford the high cost of sewage tankers, causes environmental and health problems, and the spread of epidemics and diseases in the city. Moreover, the use of cesspits pollutes the groundwater 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.
- Irresponsible practices by the citizens, such as:
  - 1. Illegal connection to the sewage network, causing an increased flow of wastewater in the network that exceeds its capacity, thus, leading wastewater to flow in the streets and causing environmental and health problems, and the spread of epidemics and diseases in the city. Moreover, the poor implementation of the sewage network and manholes contributes to the problem as well.
  - 2. The disposal of solid waste in public manholes and the sewage network causes a poor discharge of wastewater and thus its flow in the streets.
- The absence of wastewater treatment, resulting from industrial facilities at the source, where it is either discharged directly into a public sewage network or collected in cesspits.

### Solid Waste Management:

The lack of a central sanitary landfill to serve Ad Doha 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 produces bad odors and distortion of the landscape. It should be noted here that a sanitary landfill is being under construction, at the time, in Al Maniya area, south of Bethlehem governorate, to serve Bethlehem and Hebron governorates.

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

### **Other problems:**

• Based on the analysis results of land use / vegetation, within Ad Doha Municipality, it shows that industrial facilities and quarries occupy 302 dunums,

(13% of the municipal boundary), compared with the Palestinian residential areas<sup>1</sup> which occupy an area of 711 dunums (30%). These facilities and quarries are spread within the residential areas, thus negatively affecting the health of citizens, through air pollution caused by the large amounts of dust produced by these quarries. Moreover, these quarries discharge their liquid and solid waste, randomly, in nearby roads.

# **Development Plans and Projects**

### **Implemented Projects**

Ad Doha municipality has implemented several development projects, during the years 2006 to 2009, as shown in Table 8.

Table 8: Development Projects implemented by Ad Doha Municipality (2006-2009)									
Name of the Project	Year	Туре	Donor						
Construction of Girls Elementary School	2006	Constructional/Educational	Japan Government						
Construction of Additional Floors for the Elementary School	2006	Constructional/Educational	Catholic Relief Services (CRS)						
Construction of Rainwater Tunnels	2006	Infrastructure	Italian Cooperation						
Rehabilitation of Internal Roads	2007	Infrastructure	Municipal Development & Lending Fund - MDLF						
Construction of Al Huriya Street	2008	Infrastructure	Cooperative Housing Foundation						
Construction of Rainwater Tunnels	2008	Infrastructure	American Relief for the Lower East Refugees						
Construction of Ad Doha Girls High School	2009	Constructional/Educational	Charity Body (Amman)						
Source: Ad Doha Municipality, 2009	•	•	•						

<sup>&</sup>lt;sup>1</sup> This area includes the Palestinian residential areas and road network

# **Proposed Projects**

Ad Doha Municipality, in cooperation with the civil society organizations in the city and the city 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 city. The projects are as follows, in order of priority, from the viewpoint of the participants in the workshop:

- 1. Providing rainwater harvesting cisterns and solving the water problem.
- 2. Transferring the large enterprises to an industrial complex.
- 3. Taking advantage of alternative energy sources.
- 4. Establishment of a health center to be run by the municipality.
- 5. Preparing a comprehensive database.
- 6. Conducting operational projects.
- 7. Networking between institutions.
- 8. Establishment of public facilities.
- 9. Finding an experienced person to be a reference.
- 10. Finishing the public park project.
- 11. Construction of a public service center, a women's center, a children's library, and a public hall.

# **Locality Development Priorities and Needs**

Ad Doha suffers from a significant shortage of infrastructure and services. Table 9 shows the development priorities and needs in the city, according to the municipality's point of view (Ad Doha municipality, 2009):

1 2 3	Infrastru Opening and Pavement of Roads	otural Naa		Priority	
2	Opening and Pavement of Roads		ls		
		*			12km×
3	Rehabilitation of Old Water Networks		*		2km
	Extending the Water Network to Cover New Built up Areas		*		4km
4	Construction of New Water Networks			*	
5	Rehabilitation/ Construction of New Wells or Springs		*		3 springs
6	Construction of Water Reservoirs	*			$4,000 \text{m}^3$
7	Construction of a Sewage Disposal Network	*			8km
8	Construction of a New Electricity Network			*	
9	Providing Containers for Solid Waste Collection	*			60 container
10	Providing Vehicles for Collecting Solid Waste		*		1
11	Providing a Sanitary Landfill		*		
	Heal	th Needs			
1	Building of New Clinics or Health Care Centres		*		1
2	Rehabilitation of Old Clinics or Health Care Centres		*		1
3	Purchasing of Medical Equipment and Tools		*		
		ional Needs			
1	Building of New Schools		*		elementary
2	Rehabilitation of Old Schools		*		elementary & secondary
3	Purchasing of New Equipment for Schools		*		elementary & secondary schools
	Agricul	lture Needs			
1	Rehabilitation of Agricultural Lands			*	
2	Building Rainwater Harvesting Cisterns		*		150 cisterns
3	Construction of Barracks for Livestock			*	
4	Veterinary Services		*		
5	Seeds and Hay for Animals		*		
6	Construction of New Greenhouses		*		
7	Rehabilitation of Greenhouses		*		
<u>8</u> 9	Field Crops Seeds Plants and Agricultural Supplies		*		

★5km is a main road and 7km internal road

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