

# **An Nuwei'ma & 'Ein ad Duyuk al Foqa Town Profile**



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## *Acknowledgments*

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## Background

This report is part of a series of booklets, which contain compiled information about each city, village, and town in the Jericho Governorate. These booklets came as a result of a comprehensive study of all localities in Jericho 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 Needs Assessment;" the project funded by the Spanish Agency for International Cooperation for Development (AECID).

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 the Jericho 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 special emphasize on agriculture, environment and water.

All locality profiles in Arabic and English are available online at <http://vprofile.arij.org>.

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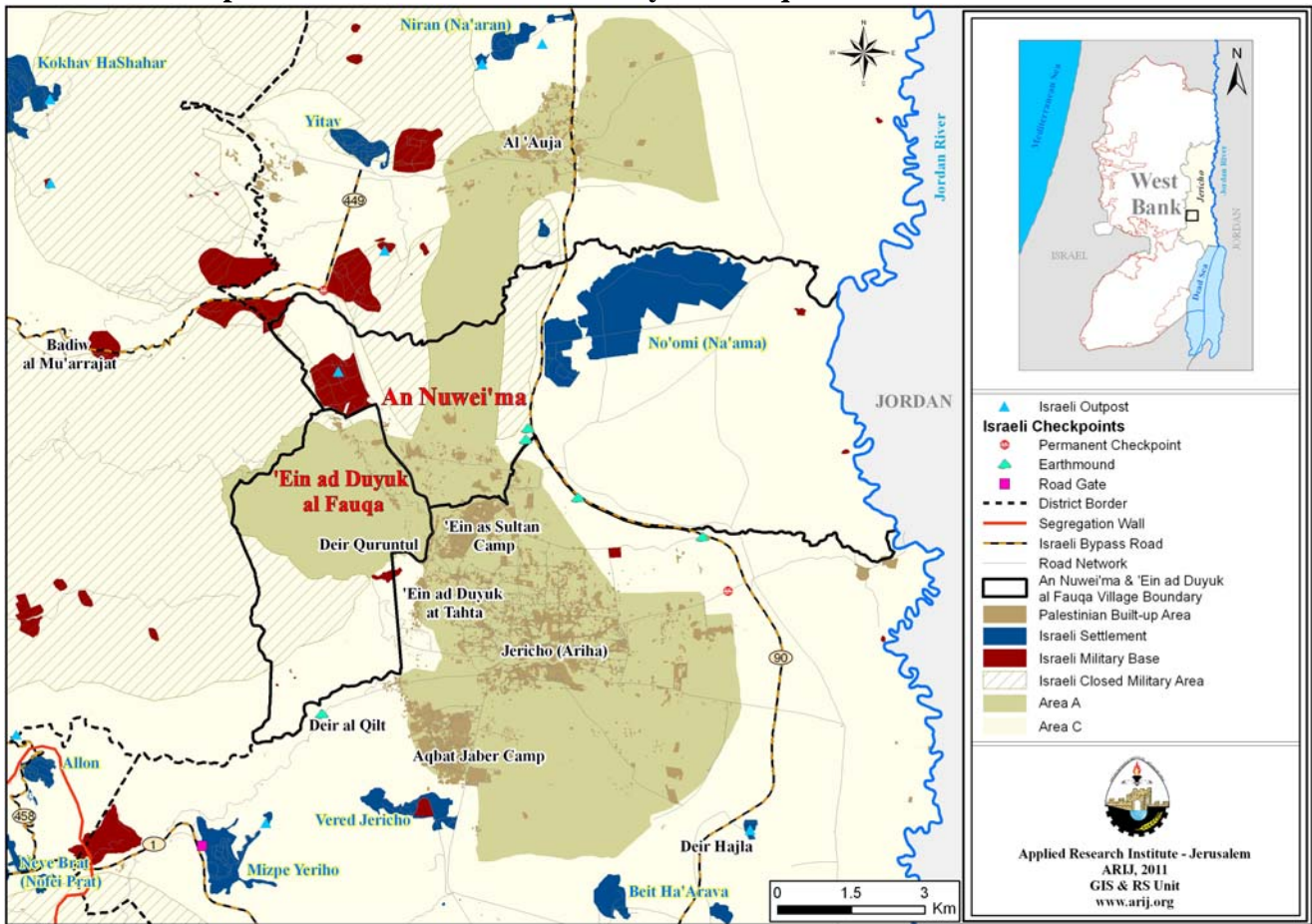
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# An Nuwei'ma & 'Ein ad Duyuk al Foqa Town Profile

## Location and Physical Characteristics

An Nuwei'ma & 'Ein ad Duyuk al Foqa is a Palestinian town in Jericho Governorate located (horizontally) 4.5km north of Jericho City. An Nuwei'ma & 'Ein ad Duyuk al Foqa is bordered by the Jordan River to the east, Al 'Auja town to the north, Rammun and Deir Dibwan villages (in Ramallah Governorate) to the west, and 'Ein as Sultan camp and Jericho city to the south<sup>1</sup> (ARIJ-GIS Unit, 2010) (See map 1).

Map 1: An Nuwei'ma & 'Ein ad Duyuk al Foqa location and borders



Source: ARIJ-GIS Unit, 2011.

<sup>1</sup> The site and borders of local bodies have been identified in accordance with the Joint Technical Commission, for the demarcation of local bodies' borders for the purposes of the elections, which consists of representatives of the Ministry of Planning, the Ministry of Local Government, the Palestinian Central Bureau of Statistics and the Central Election Commission.

An Nuwei'ma & 'Ein ad Duyuk al Foqa is located at an altitude of 144.5m below sea level with a mean annual rainfall of 161mm. The average annual temperature is 23 °C, and the average annual humidity is approximately 49% (ARIJ-GIS Unit, 2010).

Since 1994, An Nuwei'ma & 'Ein ad Duyuk al Foqa has been governed by a local council, which is currently administrated by 9 members appointed by the Palestinian National Authority, in addition to 6 permanent employees. The Local Council owns a permanent rented headquarters, but does not own a vehicle for the collection of solid waste. However, it does possess a pick-up car which is used for assisting with various town services (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

It is the responsibility of the Local Council to provide a number of services to the residents of An Nuwei'ma & 'Ein ad Duyuk al Foqa, including (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011):

- Establishing and maintaining the water network.
- Solid waste collection, road construction, pavement and rehabilitation, street cleaning and social development services.
- Organizing the town's construction and licensing processes.
- Protecting governmental properties.

## History

An Nuwei'ma & 'Ein ad Duyuk al Foqa town's name is derived from two etymological sources; 'An Nuwei'ma' which means the 'land of good things and blessings,' and 'Ad Duyuk' which means the 'high beautiful place' (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011). The establishment of the town dates back 250 years with its residents descending from Sudan and Africa, in addition to Palestine (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011) (See photo below for An Nuwei'ma & 'Ein ad Duyuk al Foqa town).

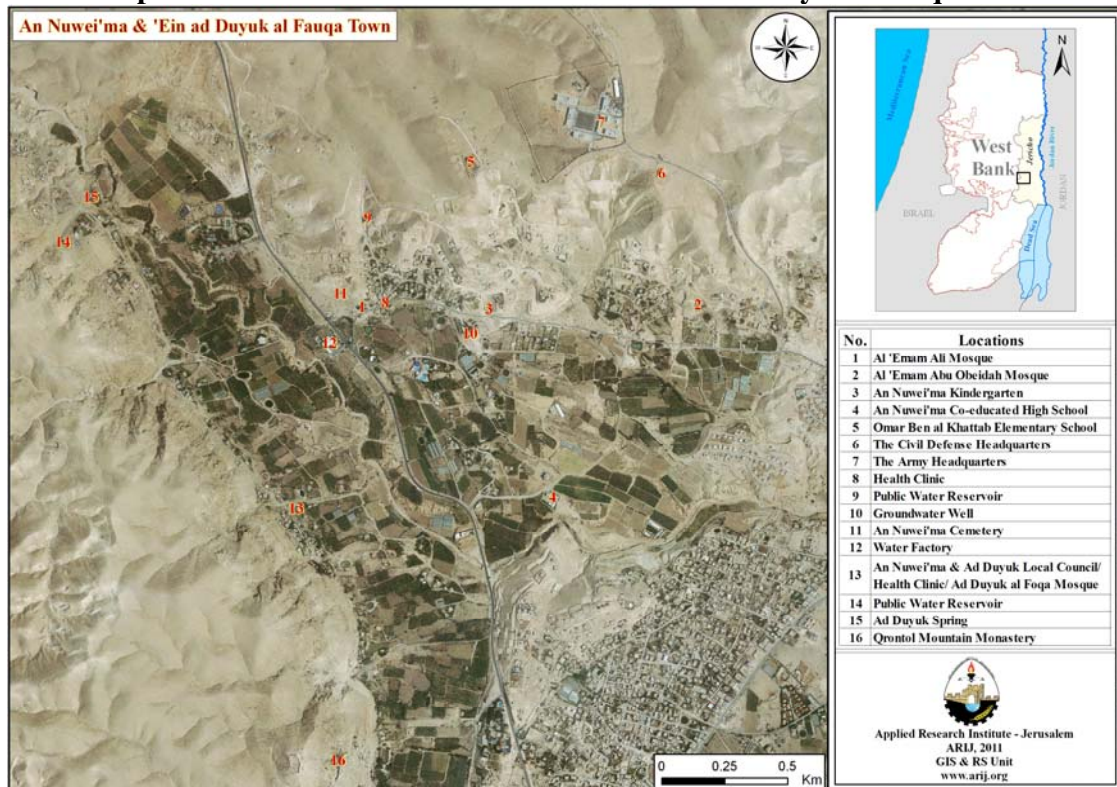
**Photo1: An Nuwei'ma & 'Ein ad Duyuk al Foqa**



## Religious and Archaeological Sites

In terms of religious establishments, there are five mosques in the town; Ali ben Abi Talib, Abu 'Obeidah 'Amer ben al Jarrah, Al 'Abbas ben Abd al Muttalib, Bilal ben Rabah and Ar Rahma Mosques. As for archaeological sites, there are few, mainly: Mount of Temptation (Jabal Qurontol), Khirbet al Mufajjir, As Sukkar Mills, Al Imam Ali ben Abi Talib Shrine, and a historic synagogue (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011) (See Map 2). It is worth mentioning that according to the Palestinian division of the village borders, Deir Qurontol (Qurontol Monastery) is located within Ad Duyuk al Foqa village boundaries. However, it has been historically over time associated with Jericho city, thus, the monastery was added to the religious and archeological sites of Jericho city; given city's historical and archeological importance.

**Map 2: Main locations in An Nuwei'ma & 'Ein ad Duyuk al Foqa Town**



Source: ARIJ-GIS Unit, 2011.

## Population

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of An Nuwei'ma & 'Ein ad Duyuk al Foqa in 2007 was 1,971; of whom 956 were male and 1,015, female. There were additionally registered to be 350 households to be living in 399 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 An Nuwei'ma & 'Ein ad Duyuk al Foqa was as follows: 40.2% were less than 15 years, 55% between 15 - 64 years, whilst 2.5% fell in the 65 years and older category. Data additionally showed that the sex ratio of males to females in the town was 94.2:100, meaning that males and females constituted 48.5% and 51.5% of the population, respectively.

## Families

An Nuwei'ma & 'Ein ad Duyuk al Foqa residents are composed of several families, mainly: Drei'at, 'Awatlah, 'Asakrah, Njoom, Ghawanmah, Fhood, Zayed, Treifat, Mahalis, 'Armilah, Kharabish and Shniyat families (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).



## Education

According to the results of the PCBS Population, Housing and Establishment Census-2007, the illiteracy rate among An Nuwei'ma & 'Ein ad Duyuk al Foqa population was approximately 10.6%, of whom 80.4% were females. Of the literate population, 16.9% could only read and write, with no formal education, 33.3% had elementary education, 26.5% had preparatory education, 8.5% had secondary education, and 3.4% completed higher education. Table 1, shows the educational level in the town, by sex, and educational attainment (2007).

**Table 1: An Nuwei'ma & 'Ein ad Duyuk al Foqa population (10 years and above) by sex and educational attainment, 2007**

Sex	Illite- rate	Can read & write	Elem- entary	Prepa- ratory	Second- ary	Associate Diploma	Bach- elor	Higher Diploma	Master	PhD	Un- known	Total
M	29	121	269	172	41	10	11	-	-	-	5	658
F	119	114	195	197	77	12	14	-	1	-	5	734
<b>T</b>	<b>148</b>	<b>235</b>	<b>464</b>	<b>369</b>	<b>118</b>	<b>22</b>	<b>25</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>10</b>	<b>1,392</b>

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

With regards to the basic and secondary education institutions and schools in An Nuwei'ma & 'Ein ad Duyuk al Foqa in the academic year 2010/2011, there are two public schools in the town run by the Palestinian Ministry of Education and Higher Education (MoEHE) (See table 2). However, there are no kindergartens in the town (Directorate of Education in Jericho, 2011).

In the town there are 477 students, 34 teachers, and 19 classes (Directorate of Education in Jericho, 2011), and it should be noted here that the average number of students per teacher in the school is nearly 14, whilst the average number of students per class is approximately 25 (Directorate of Education in Jericho, 2011).

**Table 2: The Schools in An Nuwei'ma & 'Ein ad Duyuk al Foqa by name, stage, sex, and supervising authority**

School Name	Supervising Authority	Sex
Omar Ben al Khattab Co-educated Elementary School	Government	Mixed
An Nuwei'ma Co-educated High School		Mixed

Source: Directorate of Education in Jericho, 2011

Nevertheless, the educational sector in An Nuwei'ma & 'Ein ad Duyuk al Foqa suffers some obstacles; mainly the need for a girls school (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

## Health Status

There are only two health centers available in An Nuwei'ma & 'Ein ad Duyuk al Foqa town; a governmental health center and a governmental motherhood and childhood care facility. In case of emergency or absence of any required health services, patients are sent to Jericho Governmental hospital, to private clinics or to Jericho Health directorate; each of which is located in Jericho city, approximately 10km away from the locality (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

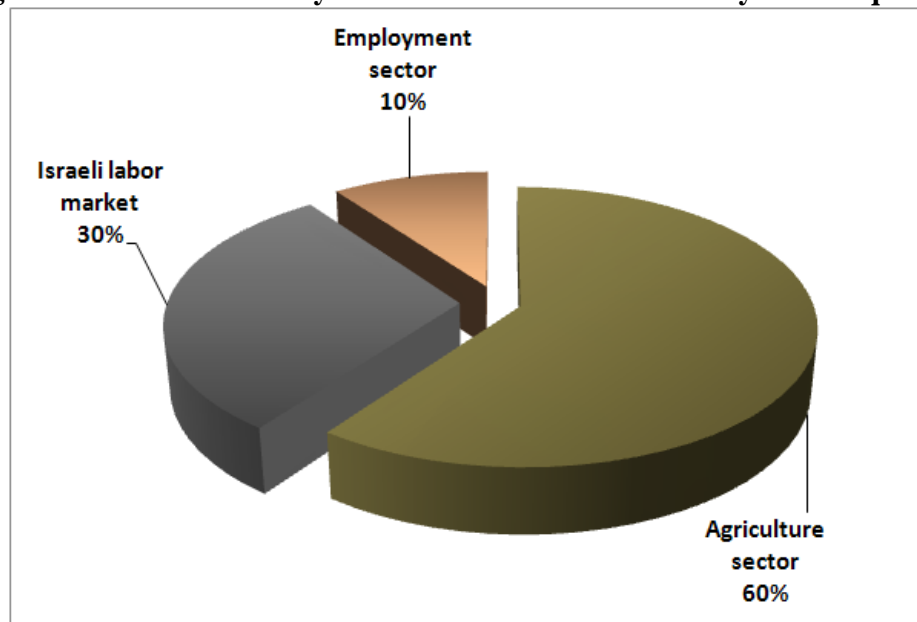
However, the health sector in the town suffers numerous obstacles and problems, including:

1. The lack of a resident physician and a nurse working on daily basis in the health center.
2. The lack of an ambulance in the town.
3. The lack of sufficient health centers to cover the whole town health needs.
4. The lack of needed medical equipment in the health center.

## Economic Activities

The economy in An Nuwei'ma & 'Ein ad Duyuk al Foqa is dependent on several economic sectors, mainly: the agriculture sector, which absorbs approximately 60% of the town's workforce (See Figure1) (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

**Figure 1: Economic activity in An Nuwei'ma & 'Ein ad Duyuk al Foqa Town**



Source: An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011

The results of a field survey conducted by ARIJ in 2011 in order to achieve the current study for the distribution of labor by economic activity in An Nuwei'ma & 'Ein ad Duyuk al Foqa are as follows:

- Agriculture Sector (60%)
- Israeli labor market (30%)
- Government or Private Employees Sector (10%)

In term of commercial, economic and industrial productions in An Nuwei'ma & 'Ein ad Duyuk al Foqa town, there are a few, mainly: Jericho Water Factory and tourism industries. In addition, there are 9 grocery stores in the town, one professional workshop (carpentry) and 2 different services stores (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

However, the unemployment rate in 2011 reached around 42%, with it being discovered that the social groups most affected in the town as a result of the Israeli restrictions and procedures, were as follows (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011):

1. Workers in the agricultural sector.
2. Workers in the grazing sector.
3. Residential areas (C).

## Labor Force

According to the PCBS Population, Housing and Establishment Census-2007, 36.1% of An Nuwei'ma & 'Ein ad Duyuk al Foqa labor force were economically active, of whom 98.2% were employed, 63.6% were not economically active; of whom 44.9% were students and 42.6% were housekeepers (See table 3).

**Table 3: An Nuwei'ma & 'Ein ad Duyuk al Foqa population (10 years and above) by sex and employment status**

SEX	Economically Active				Not Economically Active						Un-known	Total
	Employed	Currently Unemployed	Unemployed (Never worked)	Total	Students	House-keeping	Unable to work	Not working & Not looking for work	Other	Total		
M	392	3	5	<b>400</b>	191	1	38	9	17	<b>256</b>	2	<b>658</b>
F	102	-	1	<b>103</b>	207	376	35	2	10	<b>630</b>	1	<b>734</b>
<b>T</b>	<b>494</b>	<b>3</b>	<b>6</b>	<b>503</b>	<b>398</b>	<b>377</b>	<b>73</b>	<b>11</b>	<b>27</b>	<b>886</b>	<b>3</b>	<b>1,392</b>

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

### Agricultural Sector

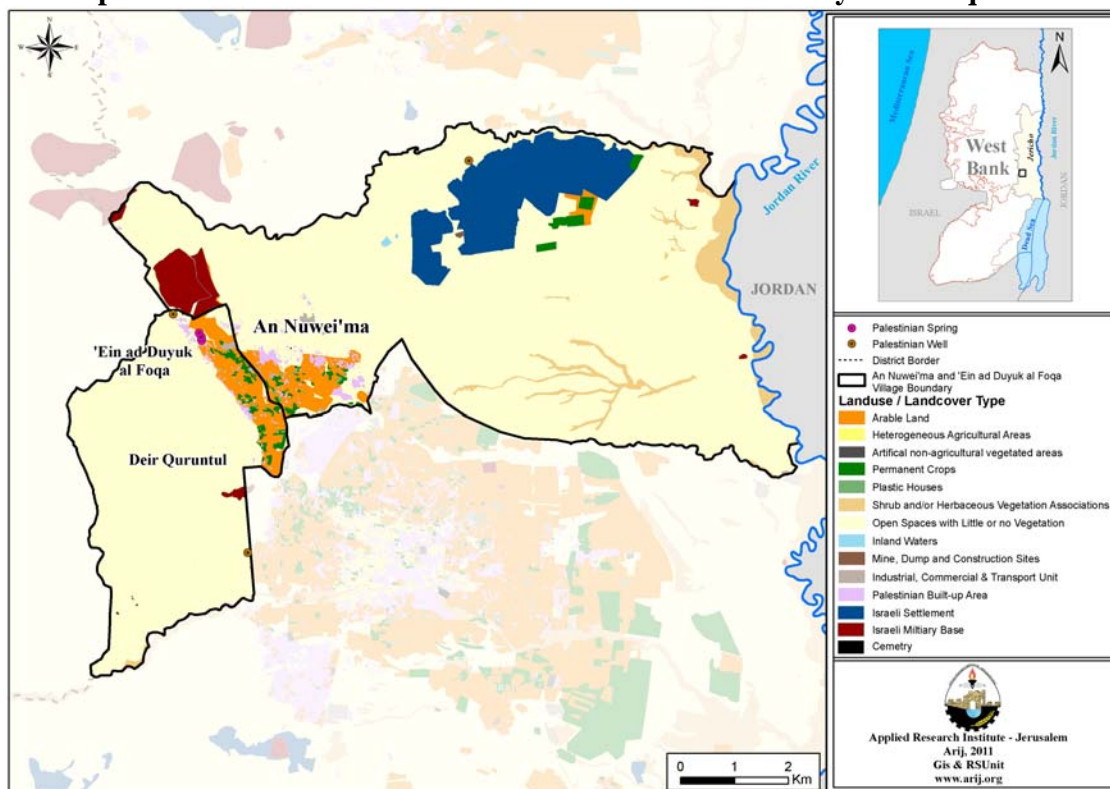
An Nuwei'ma & 'Ein ad Duyuk al Foqa lies on a total area of around 65,882 dunums, of which 5,600 dunums are considered 'arable' land, and 546 are registered as 'residential' (See table 4 and map 3).

**Table 4: Land use and land cover in An Nuwei'ma & 'Ein ad Duyuk al Foqa town in 2010 (area in dunum)**

Total Area	Built-up Area	Agricultural area [5,600 dunums]				Inland water	Forests	Open Space	Area of Industrial, Commercial & Transport Unit	Area of Settlements & Military Bases
		Permanent Crops	Green-houses	Range-lands	Arable lands					
65,882	546	698	42	2,355	2,505	45	0	53,285	139	6,267

Source: ARIJ – GIS unit, 2011

**Map 3: Land use/land cover in An Nuwei'ma & 'Ein ad Duyuk al Foqa Town**



Source: ARIJ-GIS Unit, 2011.

Agricultural production in An Nuwei'ma & 'Ein ad Duyuk al Foqa depends mostly on springs and artesian wells. The town residents cultivate different kinds of vegetables using these methods, mainly; tomatoes and cucumbers (See table 5).

**Table 5: Total area of cultivated lands in An Nuwei'ma & 'Ein ad Duyuk al Foqa town (dunum)**

Vegetables	Citrus	Grapes	Palm		Banana	Total area
			area	No. of trees		
1,615	235.5	0	96	4,890	111.5	<b>2,058</b>

Source: Jericho & Al Aghwar Directorate of Agriculture – Jericho, 2011

The difference in the two sets of results of agricultural areas, obtained from the Ministry of Agriculture and by ARIJ's GIS Unit, is explained by the fact that the Ministry of Agriculture, who in combination with the Palestinian Central Bureau of Statistics (2011) conducted a survey considering a definition of agricultural areas based on the size of ownership. Thus, the areas included in the survey were those of actual holdings of agricultural areas instead of seasonal ones. The survey did not consider fragmented and small seasonal cultivated areas in residential and agricultural areas which contains some springs. ARIJ's survey however indicated the existence of a high proportion of small and fragmented holdings (home gardens) throughout the occupied Palestinian territories. This illustrates the bigger area of agricultural holdings calculated by ARIJ.

The field survey shows that only 53% of the residents in An Nuwei'ma & 'Ein ad Duyuk al Foqa rear and keep domestic animals such as sheep, poultry and bees (See Table 6).

**Table 6: Livestock in An Nuwei'ma & 'Ein ad Duyuk al Foqa Town**

Cows*	Sheep	Camels	Poultry	Bee Hives
0	4,573	0	71,000	350

\* Including cows, bull calves, heifer calves and bulls

Source: Jericho & Al Aghwar Directorate of Agriculture – Jericho, 2011

There are also around 27.5 kilometers of agricultural roads in the town, divided as follows (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011):

**Table 7: Agricultural roads in An Nuwei'ma & 'Ein ad Duyuk al Foqa town and their lengths**

Suitability of Agricultural Roads	Length (km)
For vehicles	11
For tractors and agricultural machinery only	4.5
For animals only	4
Unsuitable	8

Source: An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011

However, the agricultural sector in the town suffers some problems and obstacles, mainly (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011):

1. The problem of marketing agricultural products.
2. The lack of capital for agricultural ventures.
3. The lack of available land space for the establishment of pens.
4. The lack of adequately educated people in the town who can make studies about the economic feasibility of agricultural ventures.
5. The increasing urban encroachment on agricultural lands.

6. The high levels of agricultural unemployment in the town.

## Institutions and Services

An Nuwei'ma & 'Ein ad Duyuk al Foqa town has a few governmental institutions, including: a national security center, in addition to a number of local institutions and associations that provide services to various segments of society such as: children, youth, and women. The services are in the areas of culture, sports and others, including (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011):

- **An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council:** Founded in 1994 by the Ministry of Local Government with the goal of taking care of all the issues in the town and providing various assistance to its population; including infrastructure services.
- **An Nuwei'ma Youth Sports Club:** Founded in 1994 by the Ministry of Youth and Sports. The club is interested in all sports, cultural and social activities for young people.
- **Ad Duyuk Youth Sports Club:** Founded in 1994 by the Ministry of Youth and Sports. The club is interested in all sports, cultural and social activities for young persons.
- **An Nuwei'ma Female Youth Agricultural Cooperative Society:** Founded in 2000 by the Ministry of Social Affairs. The Society provides agricultural services in addition to implementing small agricultural projects.
- **Ad Duyuk Agricultural Cooperative Society:** Founded in 2005, by the Ministry of Action. The Society implements livestock and agricultural related projects in addition to providing agricultural guidance.
- **An Nuwei'ma & Ad Duyuk Women Charitable Society:** Founded in 2011 by the Ministry of Foreign Affairs. The Society aims at providing different services in the field of women's development; specifically, providing job opportunities for women.
- **Workers Agricultural & Food Processing Union:** Founded in 2010 by the Ministry of Action, in order to provide workshops on food processing.
- **An Nuwei'ma Cooperative Society for Development & Crafts:** Founded in 2009, by the Ministry of Action. The Society is specialized in traditional crafts such as embroidery and copper art.

## Infrastructure and Natural Resources

### Electricity and Telecommunication Services

An Nuwei'ma & 'Ein ad Duyuk al Foqa has been connected to a public electricity network since 1988, served by Jerusalem Electricity Company; this having since then, been the main source of electricity in the town. It is noted that approximately 70% of the housing units in the town are connected to this network (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011). However, many town residents suffer problems concerning electricity, mainly that the very high costs of expanding the electricity network were not paid by the electricity company, but by the citizens (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

Furthermore, An Nuwei'ma & 'Ein ad Duyuk al Foqa is connected to a telecommunication network and approximately 70% of the housing units within the town's boundaries are connected to phone lines (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

## Transportation Services

There are 5 public taxis considered to be the main means of transportation in An Nuwei'ma & 'Ein ad Duyuk al Foqa town (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011). As for the road network in the town; there are a total of 15km of designated 'main' roads and 30km of 'secondary' roads (See Table 8) (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

**Table 8: Roads in An Nuwei'ma & 'Ein ad Duyuk al Foqa town**

Status of Internal Roads	Road Length (km)	
	Main	Sub
Paved & in good condition	10	20
Paved but in poor condition	-	-
Unpaved	5	10

Source: An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011

## Water Resources

An Nuwei'ma & 'Ein ad Duyuk al Foqa is currently being provided with water by the Local Council, through the public water network established in 2006 and 1991 in An Nuwei'ma and Ad Duyuk localities, respectively. It is noted that approximately 80% of the housing units are connected to this network (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011). Moreover, An Nuwei'ma and Ad Duyuk springs are considered the main sources for water supply in the town. The quantity of water supplied to the residents from the two springs in 2011 was approximately 55,000 cubic meters/ month, and was used for a combination of domestic and agricultural purposes (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

Based on the Palestinian Water Authority's (PWA) estimations, the average rate of water supply per capita in An Nuwei'ma & 'Ein ad Duyuk al Foqa town is around 75 liters per day. Here it should be noted that no An Nuwei'ma & 'Ein ad Duyuk al Foqa citizen in fact consumes this amount of water due to water losses, which are recorded at approximately 20%. These losses happen at the main source, major transport lines, distribution network, and at the household level, making the rate of water consumption per capita in An Nuwei'ma & 'Ein ad Duyuk al Foqa an estimated 60 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 (PWA, 2009). However, it's worth mentioning that each cubic meter of water from the public network costs 2 NIS (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

Moreover, there are 5 private artesian wells located in the town, used for agricultural purposes, in addition to 3 springs, which are: Ad Duyuk, An Nuwei'ma and Shossa springs (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

## Sanitation

An Nuwei'ma & 'Ein ad Duyuk al Foqa lacks a public sewerage network with most of the town residents using cesspits as their main means of waste -water disposal (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

Based on the estimated daily per capita water consumption, the estimated amount of wastewater generated per day, is approximately 82.8 cubic meters, equating to 30,215 cubic meters annually. At the individual level, it is estimated that the per capita wastewater generation is 42 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 and this poses a serious threat to both environment and public health (ARIJ-WERU, 2012).

## Solid Waste Management

The Joint Services Council for Development and Planning for the Management of Solid Waste in Jericho & Al Aghwar 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 town, 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 (approx. 18 NIS/month) 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; as only 60% of these fees are collected from town citizens (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011).

Most of the population in An Nuwei'ma & 'Ein ad Duyuk al Foqa benefit from the solid waste services, whereby waste is collected from households, institutions, shops, and public squares in plastic bags and then transferred to 20 containers<sup>2</sup>, spread throughout the locality. The Council collects the solid waste from the containers twice a week and transports it through a waste vehicle owned by the Joint Council to Jericho dumping site, located 7km in distance from the town center. The common method for solid waste treatment in this dumping site is through the burial of waste. The cost of discharging the solid waste in the dumping site is 20 NIS per ton (The Joint Services Council, 2012). It should be further commented upon that medical solid waste and hazardous wastes *are* being separated at the landfill; there being a specific area for each type of waste to be collected at<sup>3</sup>.

It should be noted here that Jericho sanitary landfill was established in 2007 with a funding from the Japanese International Cooperation Agency (JICA). The landfill serves approximately 72.2% of Jericho and Al Aghwar Governorate area (PNA, 2010), as it covers Jericho city, Ad Duyuk and An Nuwei'ma town, in addition to Aqbat Jaber and 'Ein as Sultan camps (The Joint Services Council, 2012).

Through designing the landfill, the standards of Japan (Fukouka Theory); Semi aerobic system, were taken into consideration, as the landfill was lined by two layers of soil and a layer of high density plastic (HDPE) in order to prevent leakage of leachate into groundwater, in addition to the extension of a

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<sup>2</sup> each with a 1m<sup>3</sup> capacity

<sup>3</sup> For example, there are separate areas for slaughterhouse and medical wastes.



network of pipes to collect the leachate and discharge it into a pool made specially for the collection of leachate, also, pipes were installed to collect gas and release it into the air in order to get rid of it (The Joint Services Council, 2012). Table 9 shows some information about Jericho's use of sanitary landfill; its capacity, its geographical scope and the number of served population. As shown in the table below, the work in the landfill was to be finished in 2011, thus, the Council is currently preparing a plan to expand the area of the landfill for 20 extra dunums.

**Table 9: Information on Jericho sanitary landfill for solid waste**

Area served by the landfill	Served population	Daily amount of waste (ton/day)	Capacity (m <sup>3</sup> )	Landfill area (dunum)	Total area (dunum)	Life-time	Time of completion
Jericho city, Ad Duyuk & An Nuwei'ma town, and Aqbat Jaber & 'Ein as Sultan Camps (72.2% of Jericho & Al Aghwar Governorate)	32,368	33 - 35	53,000	10.3	26.5	4 years	2011

**Source:** The Joint Services Council for Development & Planning for the Management of Solid Waste in Jericho & Al Aghwar, 2012

The daily per capita rate of solid waste production in An Nuwei'ma & 'Ein ad Duyuk al Foqa is 1.05kg. Thus the estimated amount of solid waste produced per day from An Nuwei'ma & 'Ein ad Duyuk al Foqa residents is nearly 2.1 tons, or 755 tons per year (ARIJ-WERU, 2012). According to the Joint Services Council, approximately 11 tons of waste is being collected each week from An Nuwei'ma and Ad Duyuk al Foqa town; this equaling, 1.6 tons per day.

## Environmental Conditions

Like other towns, villages and camps in the governorate, An Nuwei'ma & 'Ein ad Duyuk al Foqa experiences several environmental problems which must be addressed and solved, which can be identified as follows:

### Water Crisis

- Groundwater sources have been depleted through 'Mekorot' Israeli owned wells, which have been given a monopoly on the excavation, restoration, distribution and selling of water, whilst Palestinians have been forbidden from constructing new wells and/or restoring existing ones. In many cases, as is true of An Nuwei'ma & 'Ein ad Duyuk al Foqa town, the local authority relies heavily on the purchase of water from Mekorot Israeli Company to provide the town with water. The Company, through the wells it owns, extracts large quantities of ground water, whereby it pumps the bulk of this water for the benefit of the illegal Israeli settlements, as settlers, mainly those in the Jordan Valley area, use huge quantities of water (ARIJ, 2011).
- Israeli Occupation forces do not allow Palestinians to construct new agricultural wells or rehabilitate/change the location of the old ones. They further set a limit on the quantity of water permitted to be pumped from these wells.

## Wastewater Management

The absence of a public sewage network means most town residents use cesspits for the disposal of wastewater (An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011), and/or discharge wastewater in the streets, especially in winter, as citizens cannot afford the high cost of sewage tankers at this time. All of these actions cause environmental damages, health problems, and the spread of epidemics and diseases in the town. 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, thus making 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, on a sporadic basis, the need to use sewage tankers. 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 as well as residents' health (ARIJ, 2011).

## Impact of the Israeli Occupation

Prior to 2011 and before the decision of the Local Government Ministry to join the two councils, Ein ad Duyuk al Fauqa and An Nuwei'ma were two separate adjacent villages, by which each had its specific circumstances and geopolitical status. Therefore this section will separately describe the geopolitical status and the Israeli violations for each village.

### Ein ad Duyuk al Fauqa

According to the Oslo II Interim Agreement signed on 28<sup>th</sup> September 1995 between the Palestinian Liberation Organization (PLO) and Israel, Ein ad Duyuk al Fauqa village was divided into areas "A" and "C". Approximately 8,934 dunums (52.3% of the total village area) were assigned as area "A", where the Palestinian National Authority (PNA) has complete control over administration and security matters. It is worth mentioning that most Palestinians live in Area "A". On the other hand, approximately 8,153 dunums (47.7% of the total village area) were classified as area "C", where Israel retains full control over security and administration related to the territory. In area "C" Palestinian building and land management is prohibited unless through a permit given by the Israeli Civil Administration. Most of the lands lying within the area "C" are agricultural and open spaces (table 10).

**Table 10: The Geopolitical Divisions of Ein ad Duyuk al Fauqa according to the Oslo II Interim Agreement in 1995**

Area	Area in dunums	Percent of total town area
Area A	8,934	52.3
Area B	0	0
Area C	8,153	47.7
Nature Reserve	0	0
<b>Total</b>	<b>17,087</b>	<b>100</b>

Source: Source: ARIJ-GIS Unit, 2011

## Israeli Occupation Practices in Ein ad Duyuk al Fauqa

Ein ad Duyuk al Fauqa suffers the existence of an Israeli military base to the north of the village which covers a confiscated area of 76 dunums. The Israeli military bases oppress the Palestinian communities as much as the existence of the Israeli settlements does. The military bases imply life threatening danger to Palestinians living adjacently, with many losses of life occurring through Israeli practices at these bases, or because of ammunition fired during military exercises (ARIJ – Urbanization Monitoring Unit, 2011).

## An Nuwei'ma

An Nuwei'ma village was divided into areas "A" and "C". Approximately 6,091 dunums (12.5% of the total village area) were assigned as area "A". On the other hand, approximately 42,704 dunums (87.5% of the total village area) were classified as area "C" (table 11).

**Table 11: The Geopolitical Divisions of An Nuwei'ma according to the Oslo II Interim Agreement in 1995**

Area	Area in dunums	Percent of total town area
Area A	6,091	12.5
Area B	0	0
Area C	42,704	87.5
Nature Reserve	0	0
<b>Total</b>	<b>48,795</b>	<b>100</b>

Source: Source: ARIJ-GIS Unit, 2011

## An Nuwei'ma and the Israeli Occupation Practices

Thousands of dunums have been lost in the village through Israeli confiscations of lands for different Israeli benefits, starting with the building of Israeli settlements and outposts on the village's lands then constructing Israeli bypass roads in order to connect settlements with their neighboring ones, and the establishment of Israeli military bases.

The Israeli government confiscated 5,048 dunums of the village's lands (10.4% of the total village area) for the construction of the Israeli settlement "Na'omi" (GIS Unit – ARIJ. 2011), which is inhabited by more than 100 Israeli settlers (ARIJ – Urbanization Monitoring Unit, 2011) (Table 12).

**Table 12: Israeli Settlements constructed over An Nuwei'ma village's lands**

Settlement Name	Year of construction	Area confiscated (dunum)	Population of settlers
Na'omi	1979	5,048	102

Source: ARIJ-GIS, 2011

Land confiscations in An Nuwei'ma extended to the seizure of more areas for the purpose of establishing an Israeli military base over an area of 1,143 dunums in order to protect both settlements existing on the town's lands, and those neighboring them.

The Government of Israel also confiscated additional village lands in order to construct Israeli bypass road no. 90 for the purpose of connecting Israeli settlements to one another. It is worth mentioning that the real threat of bypass roads lies in the buffer zone formed by the Israeli Occupation Forces (IOF) along these roads, extending to approximately 75m on both sides of the road (ARIJ – Urbanization Monitoring Unit, 2011).

More of the village's lands have been seized forcefully by Israeli settlers to establish the Israeli outpost "Mevi'ot Yericho. It is worth mentioning that during the past two decades Israel constructed 232 outposts within the West Bank. These outposts are considered the nucleus for the development of new settlements. Outposts are composed of mobile caravans on the stolen lands by the settlers. Outposts are a contiguity of a mother settlement that is near. It is worth mentioning that the epidemic of Israeli outposts started with a "Sharonian" call for Jewish settlers to take control over Palestinian hilltops to prevent transferring them to Palestinians in negotiations. Although the successive Israeli governments haven't legalized this phenomenon, they managed to find the security and logistics to cover and therefore justify the act and its continuity. After 2001 the Prime Minister Ariel Sharon unleashed the expansion of outposts which has led to a significant increase in the number of outposts within Palestinian areas. In addition, the Israeli Occupation Forces (IOF) helped Israeli settlers to move and settle in those outposts, in addition to protecting and providing them with the necessary infrastructure to guarantee their continued secure existence (ARIJ – Urbanization Monitoring Unit, 2011).

### **Issued Military Orders in An Nuwei'ma**

The Israeli government has repeatedly targeted Palestinian houses and establishments in area "C" under the pretext of being completely under the Israeli military and security control according to the Oslo II Accord. Palestinians who want to reconstruct or build in area "C" have to ask for a permit from the Israeli Civil Administration. However, the Israeli government puts bureaucratic barriers for Palestinians to get the construction permit; it imposes exhaustive details of administrative procedures and conditions which may take months and even years to obtain the construction permit from the Israeli authority, this is in addition to the high cost spent for obtaining the permit. In most cases those permits are rejected under the pretext that they don't meet the required Israeli conditions. Consequently, Palestinians are forced to build with no permits in response to the population growth and the need for shelter (ARIJ – Urbanization Monitoring Unit, 2011).

It should be noted that the terms that had been signed in the interim agreements (Oslo Interim Agreements) stipulated that Israeli withdrawals from Palestinian areas will continue till 1999, whereby Israel would be withdrawn from 95% of the Palestinian territory, so as to be under the absolute control of the Palestinian Authority. However, this process was stopped with the discontinuance of negotiations and the intentional delay of the Israeli government to implement the assigned agreements, which led to partial withdrawal for the Palestinian territory (ARIJ – Urbanization Monitoring Unit, 2011). Accordingly, the total area controlled by the Palestinian Authority (area A) till march 2000 didn't not exceed 18.2% of the total area of the West Bank, whilst 21.8% of the West Bank is classified as area B, and 60% is under the Israeli control and it includes area C and nature reserves (ARIJ-GIS Unit, 2011).

Therefore, the building of any establishment in area C, being a house, warehouse, barn, water cisterns or any facility still requires a permit issued by the Israeli Civil Administration. On the other hand, the Israeli settlement expansion and judaization of the Palestinian territory are accelerating in addition to the continuous confiscation of Palestinian lands and properties.

An Nuwei'ma village, as other Palestinian villages in area C, is subjected to Israeli attacks aimed at Palestinian houses and properties, under the pretext of 'unauthorized construction.' During the years of the Israeli occupation the village has been presented with tens of military orders demanding the halting of building construction relating to residential and other establishments, because of supposed unauthorized construction. The orders are usually issued by the Israeli sub-committee of planning and inspections affiliated to the Israeli Civil Administration in accordance to article 38 (1) T (3) of the Towns, Villages and Buildings Planning Law (No. 79), of 1966 (ARIJ – Urbanization Monitoring Unit, 2011).

It should be noted that Israel employed the 1966 Jordanian law (No. 79) for Urban Planning in the West Bank in limited fashion following its occupation of the Palestinian territory in 1967, until it tailored the law on the basis of military order No. 418, to comply with its interests and settlement plans in the occupied Palestinian territory, changing its main features in the following manners (ARIJ – Urbanization Monitoring Unit, 2011):

1. Changing the implementation law bodies from Jordanian to Israeli bodies
2. Military Order No. 418 aimed at the fragmentation of the West Bank territory as areas inhabited by Palestinians were prohibited from development and construction while the order identifies the Israeli settlements areas as an area for development. It also prevents Palestinians from developing their residential areas.
3. The new military order canceled the role of local authorities and bodies in the planning process of their communities –including building licensing and authorization- and transformed that right over into the hands of the regional planning committees and the higher planning council within the Israeli Army operating under the name 'Villages Planning Committee' and headed by Israeli Army officers.
4. The military order had also originated a planning commission called 'the Subcommittee for planning and inspections' which is directed to the wellbeing benefit and interest of the Israeli settlers' population, with no regard to the interests of the indigenous Palestinian populations.
5. The military order given to the Israeli Army's districts commander in chief, includes the authority to appoint special planning committee for the development of Israeli settlements, and jurisdiction of regional planning commission.

In January 2011, the Israeli Civil Administration presented people of Arab Abu Zayed that lies to the north of Abu Nuwei'ma with 17 stop-work and demolition orders to halt constructions in a number of properties including a mosque, residential tents, animal barns, etc. The orders targeted 4 sheep barns, 5 houses, 7 residential barracks, a mosque and electricity poles. These properties are owned by Mohammed Ali Zayed, Salamah Ali, Najeh Ali Zayed, Ashraf Suleiman Zayed, Hussein Da'oud, Su'oud Da'oud Zayed, Ata Da'oud, Nayef Da'oud Zayed, Taleb Da'oud Zayed, Suleiman Da'oud Zayed, Ahmed Da'oud Zayed, Nader Da'oud Zayed, Youssef Da'oud, Zayed Suleiman Salamah, and Musa Suleiman Salamah Hassan (ARIJ – Urbanization Monitoring Unit, 2011). The Israeli occupation authorities gave these people a time limit till 27<sup>th</sup> January 2011 to legally challenge the military orders,

and to carry on directly with the licensing procedures. However, applying for the construction license by Palestinians doesn't mean or guarantee its acceptance by the Israeli authorities.

Also, on 3<sup>rd</sup> November 2010, the people of Arab Az Zayed were presented by 10 military orders to halt the construction in their properties including houses and animal barns. This property are owned by Ibrahim Mohammad Zayed, Deifallah Mohammed Hussein Az Zayed, Oudeh Mohammad Az Zayed, Saleh Modammad Az Zayed, Suleiman Mohammad Az Zayed, Hussein Mohammad Az Zayed, Isma'il Mohammad Tarif Rashayda, Samir Mohammad Mahmoud Rashayda, Taysir Mohammad Mahmoud Rashayda, and Saleh Mohammad Mahmoud Rashayda. The community Arab Az Zayed (the Bedouins of An Nuwei'ma) about 1 kilometer to the northwest of An Nuwei'ma village and to the north of Jericho City. The community is considered a vital part of the village, and has a population of approximately 350 people.

## Development Plans and Projects

### Implemented Projects

An Nuwei'ma & 'Ein ad Duyuk al Foqa local council has implemented several development projects in An Nuwei'ma & 'Ein ad Duyuk al Foqa, during the past five years (See Table 13).

**Table 13: Implemented development plans and projects in An Nuwei'ma and 'Ein ad Duyuk al Foqa during the last five years**

Name of the Project	Type	Year	Donor
Construction of a water network in An Nuwei'ma locality	Infrastructure	2007	USA
Rehabilitation of 'Ein ad Duyuk water network	Infrastructure	2010	Municipalities Fund
Construction of internal/sub roads in An Nuwei'ma and Ad Duyuk localities	Infrastructure	2011	JICA
Construction of a kindergarten in 'Ein ad Duyuk	Educational	2010	JICA

**Source:** An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, 2011

### Proposed Projects

An Nuwei'ma & 'Ein ad Duyuk al Foqa Local Council, in cooperation with the civil society organizations in the town and the town 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 town. The projects are as follows, in order of priority, from the perspectives' of the participants in the workshop:

1. Supporting the agricultural sector and improving An Nuwei'ma through establishing greenhouses and an agricultural irrigation network, providing fertilizers and agricultural equipments, and supporting livestock with feed and other inputs.

2. Registering the citizens' governmental lands and expanding the town basin.
3. Solving the transportations' problem.
4. Establishing a drinking water reservoir and expanding the water network.
5. Supporting the educational sector.
6. Supporting agricultural and women societies.
7. Improving health services.
8. Solving the sanitation problem.
9. Establishing home gardens through supporting small-scale projects for poor families.
10. Establishing sports clubs and children's parks.
11. Expanding the electricity network and providing street lightings.
12. Establishing factories to employ the unemployed workers.
13. Constructing dams for the harvesting of rainwater.

## Locality Development Priorities and Needs

An Nuwei'ma & 'Ein ad Duyuk al Foqa suffers from a significant shortage of infrastructure and services. Table 14 shows the development priorities and needs in the town, according to the local council's feedback.

**Table 14: Development Priorities and Needs in An Nuwei'ma & 'Ein ad Duyuk al Foqa**

No.	Sector	Strongly Needed	Needed	Not a Priority	Notes
<b>Infrastructural Needs</b>					
1	Opening and Pavement of Roads	*			37km*
2	Rehabilitation of Old Water Networks			*	
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	*			1000 cubic meters
7	Construction of a Sewage Disposal Network	*			15km
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			*	
<b>Health Needs</b>					
1	Building of New Clinics or Health Care Centres	*			two health clinics
2	Rehabilitation of Old Clinics or Health Care Centres	*			one health clinic
3	Purchasing of Medical Equipment and Tools	*			
<b>Educational Needs</b>					
1	Building of New Schools	*			secondary school for girls
2	Rehabilitation of Old Schools			*	
3	Purchasing of New Equipment for Schools			*	
<b>Agriculture Needs</b>					
1	Rehabilitation of Agricultural Lands			*	
2	Building Rainwater Harvesting Cisterns	*			2 cisterns
3	Construction of Barracks for Livestock	*			50 barracks
4	Veterinary Services	*			
5	Seeds and Hay for Animals	*			1,500 tons per year
6	Construction of New Greenhouses	*			40 greenhouses
7	Rehabilitation of Greenhouses	*			15 greenhouses
8	Field Crops Seeds			*	
9	Plants and Agricultural Supplies	*			
<b>Other Needs</b>					
1	Bulldozers, small hammers and agricultural tractors				

\*10km are main roads, 12km are sub roads and 15km are agricultural roads.

Source: An Nuwei'ma & 'Ein ad Duyuk al Foqa Local council, 2011



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