



# Environmental structure of the population in Ajloun governorate in Jordan, year 2012

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## Abstract

This paper studies one of the most important characteristics of the population in Ajloun Governorate, it is: Environmental Structure. The importance comes from being one of the key indicators that are connected to a large degree to the characteristics of demographics of the population and the consequent changes of them. Ajloun is located in the north-west of the Jordan, between latitudes  $32^{\circ} 12^{\circ}$  and  $32^{\circ} 26^{\circ}$  north, and longitudes  $35^{\circ} 36^{\circ}$  and  $35^{\circ} 49^{\circ}$  east. It has a population of 146 900 inhabitants, and a surface area of 419.6 square kilometers. This study aimed to discuss and analyze Environmental structure of the population in Ajloun. To achieve this aim, the researcher followed the descriptive and analytical Approach to identify the characteristics of Environmental structure. The researcher used MS Office Excel © program to process the complementary statistical data of the study. The study came up with several findings, most notably: there are 10 cities inhabited by 79.8% of Ajloun governorate population, whereas the remaining 20.2% of population lived in 45 rural settlements. The study included a set lot of tables, figures, and diagrams that clarify its message and realize its objective.

**Keywords:** The Rural; The Urban; Population Structure; Environmental Structure; Ajloun Governorate; Jordan

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## 1. Introduction

Environmental Structure means the distribution of population according to environment between Urban and Rural (Abo Ayanih,1978), as there are no Universal criteria followed which settlements are villages or cities, so, some countries depended on the number of the people to differentiate between rural and urban, other countries depended on the ratio of an agricultural working power, as the basic function in cities are offering services, but in rural the basic function is agriculture. third group of countries depended on administrative centers as cities, in spite of the number of the population or the types of jobs in these places.

Till 1994 in Jordan the town was considered urban center if it is center for district (Liwa, Qada) whatever the number of the population or the jobs they do in them. After, 1994 Jordan considered the settlement that have population 5000 people or more urban center, so this classification included in the cities criteria in spite of all the coordination's of life are rural this will apply on Ajloun Governorate settlements because all of the population of the district depend on agriculture.

### 1.1. The study area

Ajloun Governorate placed in the south west corner of Jordan between latitudes  $32^{\circ} 12'$  and  $32^{\circ} 26'$  in the north and between the meridians  $35^{\circ} 36'$  and  $35^{\circ} 49'$  in the east (Gharaybeh, 1997: 36) (Figure 1). So the area about 419.6 Km<sup>2</sup> (Department of Statistics, 2012), Ajloun Governorate is a Mountainous area the site up the sea level about 400-1247 and distinguished in the forests from the oak and other kinds of trees, beside the big number of springs, moderate climate and the fertilized soil.

In Administrative side Ajloun Governorate divided in to four center branched restricts: (Figure 2) (The Ministry of Planning and International Cooperation, 2012): Liwa Qasabat Ajloun, Liwa Kufrinja, Qada Sakhra, Qada Orjan.

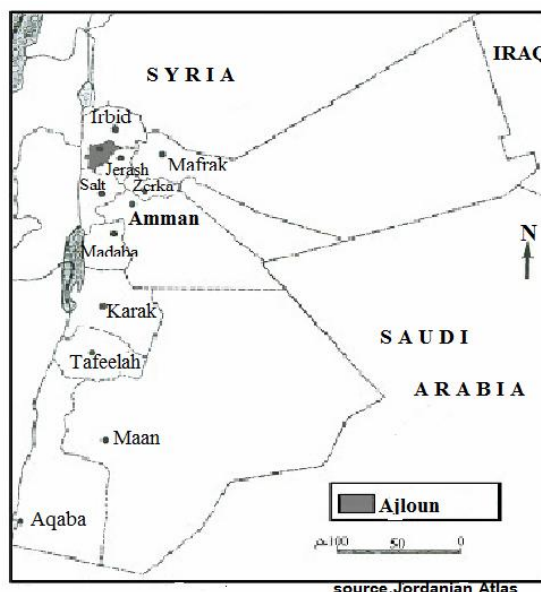


Figure 1. Location of Ajloun Governorate



**Figure 2.** Ajloun Administrative Division

### 1.2. Subject and importance of the study

The research limited on studying the environmental structure in Ajloun Governorate (Urban and Rural), analyzing the characteristics of this structure, thus, on this point we can find the importance of the study which has great importance in demographic studies because it revealed the spatial differences resulted between rural and urban, that is the sum of differences among them in the cultural, economic, healthy, levels and so on.

The study introduced clear services for the interests in decision making and development plans, beside in economic and sociality in the present and the future for the settles of the urban settlements and rural settlements, beside preparing basic designs for these settlements because it shaped the appearance of human settling which demanded specializing needed spaces for the sum of uses for different areas (housing, commercial and industry), which limited upon criterion in the first degree the volume of the population and ages periods (Sahawnih,1983) .

### 1.3. Purposes and scope

The research aimed to studying the environmental structure for Ajloun Governorate and analyze the characteristics of this structure, to conclude recommendations participated in achieving site balancing and services integration among rural and urban people in the governorate. The research limited in achieving its aims and components in three scopes:

*Spatial scope (geographical):* included managerial area for Ajloun governorate (419.6 km<sup>2</sup>) in the ratio 0.47% from the area of Jordan (Department of Statistics, 2012).

*Populational scope (Human)*: resembled in the number of the population 146.900 person distributed on the rural settlers (29.728 persons) and the cities persons are 117.172 persons.

*Chronicle scope (Historical)*: the study depended on the statistical data in the governorate in 2012.

#### 1.4. Literature review

previous studies specially the academic ones in the geographical of the population old ones and rarely happened that discussed Ajloun governorate in general were less about the population structure, and the most rarely happened about the environmental structure, the most important studies include:

a) Gharaybeh (1995): the only one study in the population in Ajloun and titled by "Social Demographic Variables Effects in Poverty Phenomena in Ajloun Governorate and the differences Among them" as this study focused on poverty phenomena and the demographic and social causes.

b) Gharaybeh (1997): this study discussed the historical geography in the west area of the mountain of Ajloun (1864-1946) included general discussing for the population and the settlements in Ajloun area.

c) Governmental Studies issued by the Ministry of Planning and International cooperation (2012), and The Unity of Developing in The Governorate: they were general studies about the populations characteristics to include population pointers as the number of populations, the ratio of sex, and the ratio of Growth.

## 2. Database and methodology

### 2.1. Data resources and interpretation methods

The study is primarily based on secondary data collected from Census of Jordan (statistics of 2012), and other government publications, including some relevant books, journals, reports, and periodicals covering the year 2012. have been consulted. From these data the researcher made 4 tables, 4 maps and 6 diagrams (Bar charts) for clear exposition of the problem, were process using MS Office Excel © program.

### 2.2. Methodology of the study

To achieve the aims of the study the researcher followed two approaches, the descriptive and the analytical approaches beside quantity approach that followed by population geography (Shalkani, 1999) in studying and analyzing spatial differences for the total characteristics of the population in Ajloun governorate.

## 3. Analysis and discussion

The environmental construction characteristics in Ajloun governorate was analyzed according to the previous classification (all Settlements centers which has more than 5000 settlers in 2012 were sited city category and that settlements which have less than that were called "rural areas").

### 3.1. City dwellers

Table 1 and Figures 3, 4, and 7 illustrated the urban areas and the numbers of their population. The number of cities in the governorate are ten cities, from them 6 in Liwa Ajloun (Ajloun, Anjara, Ain Janna, Alhashmieh, Alwahadnih, and Halawa) beside one in Liwa Kufrinja (Kufrinja), and two cities in Qada Sakhra region (Sakhra and Ibeen) and one in Qada Orjan and (Orjan). The population of all urban centers are 117.172 person equal 80% from the sum of all Ajloun governorate populations, this means that the number of rural population in Ajloun governorate is 20% (30 thousand persons), the ratio of urban population in Ajloun is equal nearly the ratio of urban population in Jordan (82.2%) (Table 2 and Figures 5 and 6).

**Table1.** Population numbers of urban centers in Ajloun governorate according to Sex and Rank (year of 2012)

city	Males	Females	Total	Rank
Kufrinja	13598	13293	26891	1
Anjara	11199	10595	21794	2
Sakhra	6399	6337	12763	3
Ain Janna	5573	5268	10841	4
Ajloun	4604	4414	9018	5
Ibeen	4533	4153	8686	6
Alhashmieh	4087	3969	8056	7
Halawa	3513	3529	7042	8
Orjan	3237	3029	6266	9
Alwahadnih	2967	2875	5842	10
Total	59710	57462	117172	-

*Source:* Department of Statistics-Jordan, population according to governorate and sex (year of 2012)

**Table 2.** Classification of settlements in Ajloun governorate according to sex and style of life (Urban& Rural)

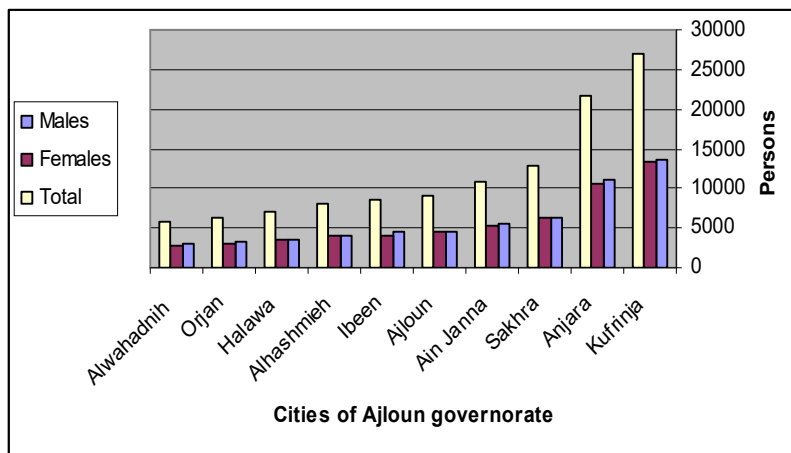
Settlement Type	Males		Females		Total	
	No.	%	No.	%	No.	%
Urban	59710	79.8	57462	79.7	117172	79.8
Rural	15090	20.2	14638	20.3	29728	20.2
Total	74800	100	72100	100	146900	100

*Source:* Department of Statistics-Jordan, population of Ajloun governorate According to sex and Rank (year 2012).

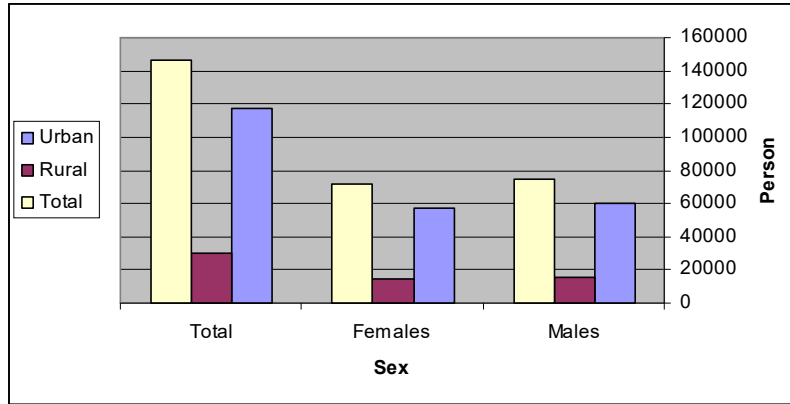


Source: Royal Jordanian Geographic Center

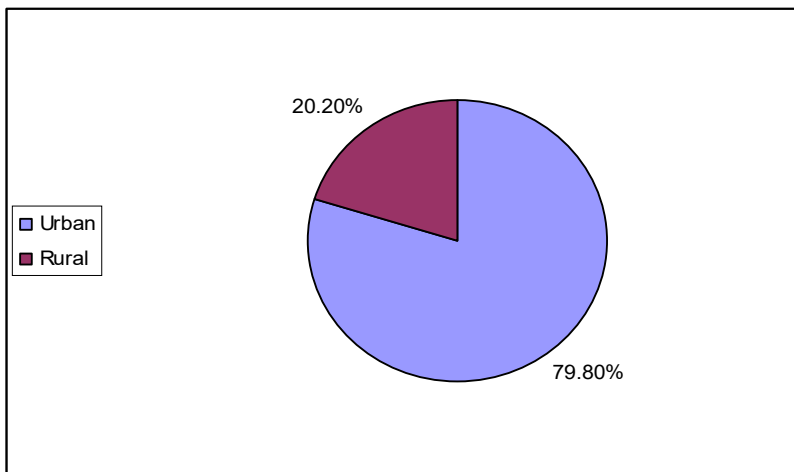
**Figure 3.** Cities in Ajloum Governorate



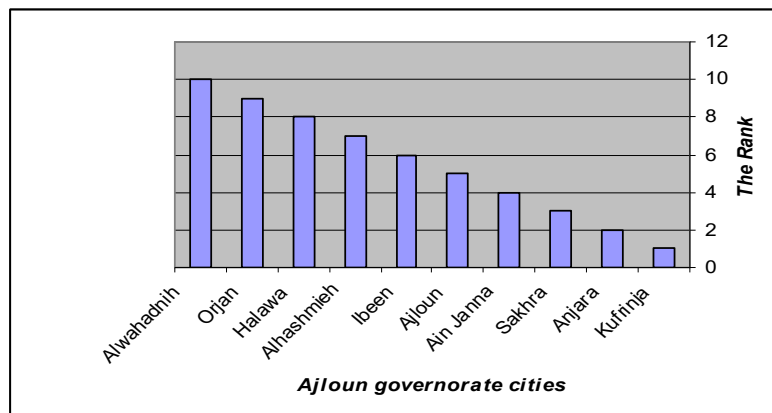
**Figure 4.** Population numbers of urban centers in Ajloun governorate according to Sex and Rank (year of 2012) (Source: the researcher from the data of Table 1)



**Figure5.** Number of settlements Population in Ajloun governorate according to sex and style of life (Source: the researcher from the data of Table 2)



**Figure 6.** Environmental Structure of Ajloun Governorate Population (Source: the researcher from the data of Table 2)



**Figure7.** The rank of Ajloun governorate cities (year of 2012) (Source: the researcher from the data of Table 1)

The differences between urban and rural in Ajloun governorate are unreal differences to mean that all dwellers in Ajloun governorate are rurals, for example the numerical classification cleared Orjan town as a city and nearby area Baoon as a village, for no reasons just the numbers of Orjan more than the number of Baoon (4585 person), for that Baoon will classified as a city in the next year, or when it will reach 5000 person, this classification lose its content and means to differentiate between urban and rural.

If we watch previous number of population in urban settlements Kufrinja occupied the first rank in steps of the cities in Ajloun governorate followed by Anjara, Sakhra and Ain janna at the fourth step, but the capital of the governorate (Ajloun City) became in the fifth rank in the numerical order as the urban cities procedure less and less to include Ibeen, Alhashmieh, Halwa, Orjan, and at last Alwahadni, according to the numbers in the General Statistical Directorate in 2012 (Figure 7).

What we can note clearly that the number of population of Ajloun city are few in spite that it is the chief Administrative center for the governorate, beside the well-known and old history of the city it has peak developed in the Islamic Period rule specially during Ayyubid and Mamluk periods, this numerical reflection referred to the Ajoun population have strong trend to immigrate outside the governorate either to Irbid city or the Capital Amman, or outside Jordan country so big number of the population of the city lives in the United States of America, and another countries like Latin America.

Strong characteristics of the urban centers in Ajloun governorate is the narrow distances among each other, as example Ain Janna city is not separated from Ajloun city except in the high way which received between Irbid and Ajloun, truly that Ain Janna and Ajloun were considered one urban area. as, if Cairo are separated from Al Jeza area in Nile river thus Ain Janna separated from Ajloun city in one street, it is important call the two cities Ajloun complex to include Ain Janna and Ajloun as Cairo called for the center areas for Cairo and Aljeza block, but if we do that will Ain Janna population agreed in this new name (Ajloun and Ain Janna complex) or Ajloun Urban Complex?

The Topography of Ajloun City is not flexible for expansion because of the severe slopes and the dense of the natural forests (vegetations) which surrounded it, so there are some suggestions to remove governmental services on the high way of Irbid-Ajloun, on this site the area is straight forward and that will make Accessibility easier and the flat wide areas may found. so, this act need critical studying and comprehensive planning.

### 3.2. Rural settlements

Table 3 and Figures 8 and 9 illustrated the number of rural areas and urban areas in the governorate spread according to administrative areas, and from this table we can watch that Liwa Qasabat Ajloun included 25 rural complexes areas followed by liwa Kufrinja in nine rural complexes, Qada Orjan which own seven centers and Qada Sakhra four centers.



**Table 3.** Number of settlements (urban & rural) in Ajloun governorate (year of 2012)

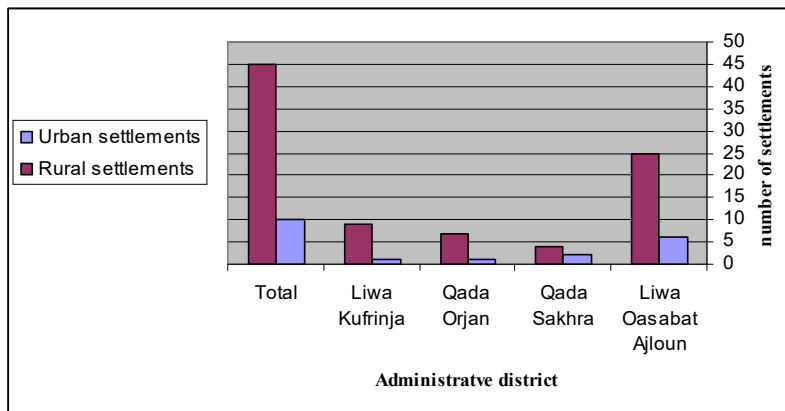
The District	Urban settlements	Rural settlements
Liwa Oasabat Ajloun	6	25
Qada Sakhra	2	4
Qada Orjan	1	7
Liwa Kufrinja	1	9
Total	10	45

Source: The Researcher field visits during the period 1/4/2014 – 1/7/2014



source: Royal Jordanian Geographic

**Figure 8.** Rural Settlement in Ajloun Governorate



**Figure 9.** Number of settlements (urban& rural) in Ajloun governorate (Source: the researcher from the data of Table 3)

Table 4 illustrated the order of these centers according to population size to find from these that nearly more than the half of the rural centers were human settlements to make their population not more than 100 persons, and these are small settlements surrounding Ajloun city these are more than twenty human settlements.

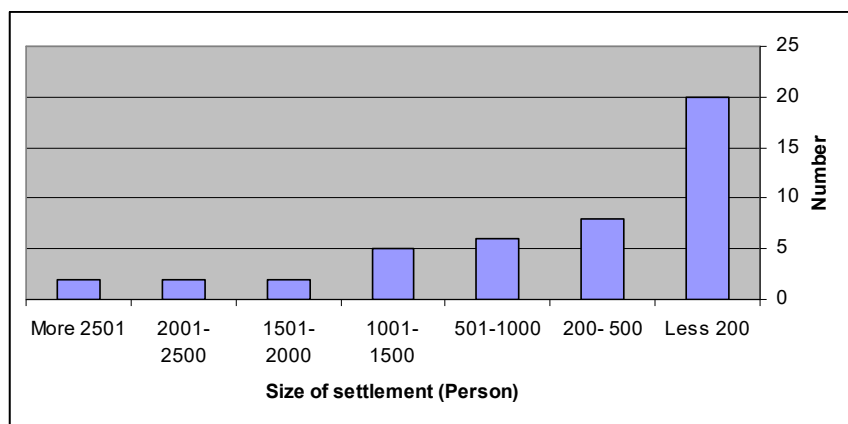
There are eight settlements appeared their population among 200-500 persons, and six settlements their population among 500-1000 persons, to mean that more than 34 settlements their population survive in them less than 1000 persons, this means also that the size of these centers are small to look like farms or blocks near the cities we can describe them as randomly distributed or dwarf settlements, to make it difficult to supply these centers in basic services in the region.

There are ten rural centers approximately their population 1000 and 5000 persons to make it shape middle size villages, to make them "Ajlounian Rural" they are: Ragoon, Baoon, Rajib, Osara, Afana, Ballas, Alshkarah, Mehna, Ibellen, Almoragam and Alsefehneh (see Table 4 and Figure 10)

**Table 4.** The distribution of Rural settlements according to Size

The Size of settlement (person)	No.	%	Names of Rural Settlements
- 200	20	44.4	Der alsamadiyah alshamali, Der alsamadiyah aljonobi, Alfakhrah, Alhanash, Alsook, Kufr Aldorraah, Alsarabees, Um Alkhashab, Khallet Salem, Zatara, Abu Alzaitoon, Listib, Alsowan, Khallet Wardih, Der Albarak, Um alrasal, AlokDAH, Kaab Almollo, Alnobah.
200- 500	8	17.8	Khsaiba Alfoka, Tiarah, Um Alyanabi, Alsakhnah, Alzaraah, Safsafa, Beer Aldaliah, Thagrit Zobaid.
501-1000	6	13.4	Aljabal Alakhdar, Ishtafina, Samta, Snaar, Esame, Alharth,
1001- 1500	5	11.2	Alshkarah, Mehna, Ibellen, Almoragam, Alsefehneh,.
1501- 2000	2	4.4	Afana, Ballas.
2001- 2500	2	4.4	Rajib, Osara.
+2501	2	4.4	Ragoon, Baoon.

Source: Department of Statistics-Jordan, population according to settlements and sex (year of 2012)



**Figure 10.** Number of settlements in Ajloun governorate according to size (Source: the researcher from the data of Table 3)

#### 4. Recommendations

From the findings of this study the following measures are recommended which may improve quality of life and fulfill integrity between rural and urban districts in Ajloun governorate:

- Draw comprehensive and strategic plans to develop rural districts in Ajloun governorate and perform them under supervisory governorate council to discuss as long as land sources and drinking water are taken in to account of ratio not less than 40% from financial resources that specialized for this plan because the increase in agricultural production in quality and quantity related strongly to these resources (land and water). For urban development, financial resources specialized for the plans must be distributed on the urban regions.
- Restrict immigration to urban districts and surrounding governorates specially Irbid Governorate, previous paragraph 4:1 is a pre-requisite to decrease the differences between the two environments from one side. on the other side to decrease in unemployment rate beside raising the socio-economic level for rural dwellers.
- Family planning awareness, especially among rurals, according to socio-economic status. This can be achieved by a mass media and public campaign.
- Improving infrastructure of rural settlements. This minds the cultural Gap between rurals and urbans.
- To publicize Ajloun as a tourism attraction by the governorate council. Ecotourism, should be the main focus. This can be encouraged by facilitating investment in this field.

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