BASELINE STUDY REPORT ON

THE SOCIO-ECONOMIC STATUS

OF THE LOCAL COMMUNITIES IN

JORDAN'S BADIA

March 2020

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Summary

This report summarizes collected data about the socio-economic situation in selected areas of Jordan's Badia; northern, middle and southern Badia, which will form baselines for impact evaluations of HERD project "Healthy Ecosystems for Rangeland Development" at the study sites in Jordan. The future evaluation based on this report is expected to illustrate the interrelatedness of issues: i) poverty leads to unsustainable utilization of the rangeland resources and ii) their overutilization leads to increased poverty.

More than 90% of the Jordanian area is classified as arid areas, locally called “Jordanian Badia”, its covers all land receiving annual rainfall of 50 to 200 mm annually. The Badia is dividing into three parts: northern, middle and southern Badias, they form major natural rangeland that meets a considerable part of feeding requirements for livestock. The objective of this study is to provide the baseline information representing the socio-economic status of the local communities in the Badia that is divided into three areas: (1) the northern Badia, (2) the middle Badia, and (3) the southern Badia. The baseline includes information on the status of the current socio-economic information of the local communities at the household level, livestock and rangeland resources, water and energy resources, which will form the basis for any management and restoration planning process.

A sample of 150 respondents from the local community was considered as convenient for representing the local communities for each area (north, middle, and south), besides the respondents were targeted randomly and data collected using a face to face method. A structured questionnaire was developed to cover specific topics, such as the household characteristics and family health and socio-economic characteristics for the head of the household, and information on water resources, governmental services, and information on land and livestock ownership. Quantitative techniques were used to generate baseline information based on the respondents' information and perceptions; therefore, the analysis was applied using SPSS and Excel sheets.

The results in this report provide the most important features that could act as benchmarks of similarities and differences between the project sites and act as areas of interventions for achieving the overall objective of the HERD project. Nevertheless, several results from this

survey demonstrated a high level of harmony among different households at the three study sites, where it turned out the clear consistency of household properties such as the age of household head and income sources, and other services as water, health, educational services.

The families in the three Badia's reflected approximate average age of the household age ranged from 45.4 – 48.1 years, and all of the respondents had stated for not having any kind of disabilities or/and chronic diseases. Moreover, most of the respondents were working in the public sector, specifically either retired or still working at the military forces, or working in the private sector or their own private businesses. This reflects the working ability of the household head as they were mainly in middle age and many of them had retired at an early age, which reflects an opportunity to involve them in additional work opportunities for enhancing livelihood.

The respondents reflected common livestock management plans, the livestock depends on fodder and grazing, livestock flocks were not traveling far distance for grazing, and respondents had complained about the cost of fodders and limited grazing plants. In conclusion, the respondents had reflected a common level of governmental services in the three regions, besides common joint livestock management plans.

The households in the three regions owned both goats and sheep, with a high variations in the flock size in the same region and the other regions, as in the Northern Badia the flock size of goats = 17, and of sheep = 3), the middle Badia the flock size of goats = 1, and of sheep = 51), and the southern Badia the flock size of goats = 22, and of sheep = 63). The main breeding system is closed in Northern and middle Badia. Women took different roles in livestock management, like milking, dairy products production, grazing, and marketing. The problems related to agriculture were different: in northern Badia, the main problems were: water shortage, livestock prices, the lack of agricultural lands for cultivation, and the high fodder prices. For the middle Badia, the main problems were: water shortage, the lack of agricultural land for cultivation, overgrazing, and lack of pastures. For those from southern Badia the main problems were: water shortage, high fodder prices, the lack of agricultural lands for cultivation and low selling prices of livestock.

The respondents from the three Badia's proposed development projects for each region, which were as the following: northern Badia: support fodder prices and wells drilling, for those from the middle Badia the proposed projects were: wells drilling, and establishing reserves, and for the southern Badia the proposed projects were: wells drilling, and provide mobile veterinary clinics.

1. Introduction

More than 90% of the Jordanian area is classified as arid areas, locally called "Jordanian Badia", which derived its name from the land where Bedouins live and practice seasonal browsing. This area includes all lands receiving annual rainfall of 50 to 200 mm annually and has general characteristics of seasonal contrasts in temperature with high variations in rainfall within and among years. Badia in Jordan forms major natural rangeland that meets a considerable part of feeding requirements for livestock. The Badia extends from north to south along the eastern portion covering about 90 percent of the country's total area (Image 1). Badia of Jordan can be subdivided into three main sub-geographical areas:

• The northern Badia, comprising 26,000 km².

• The middle Badia, comprising 10,000 km².

• The southern Badia, comprising 38,000 km².

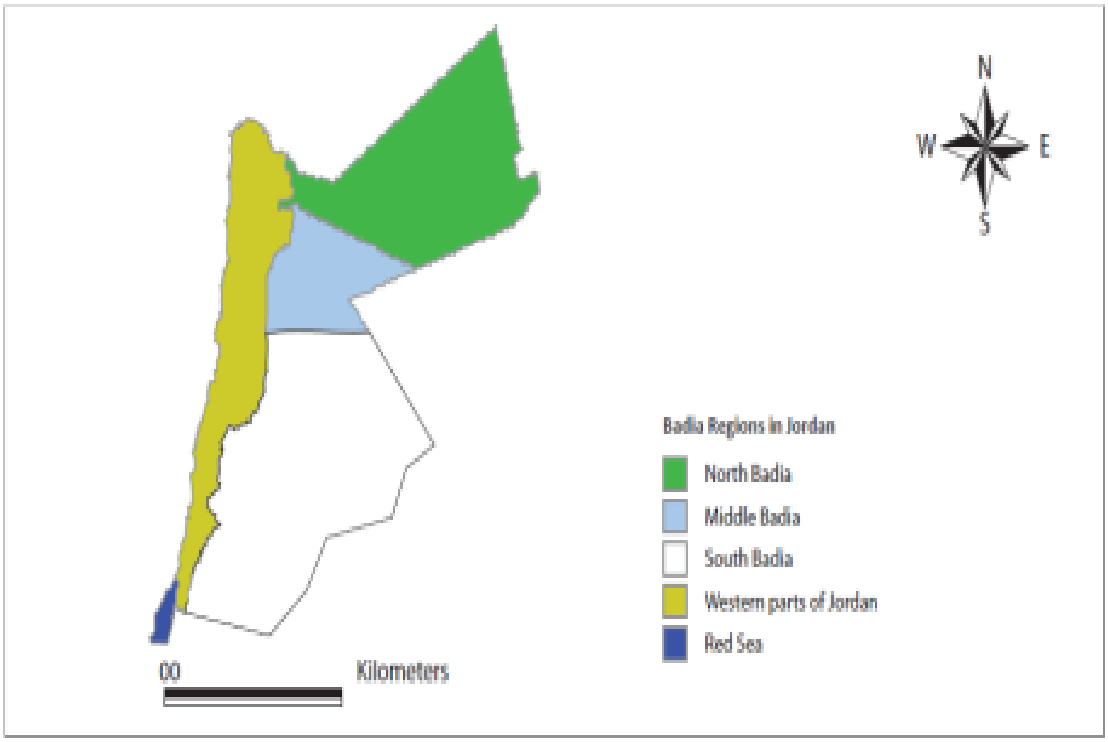

Image 1: Distribution of Jordanian Badia, Source: ICARDA 2012

In Jordan, a significant proportion of the rangelands are degraded, although estimates of the extent and nature of degradation may vary. As a result of rangeland degradation, it is believed that overall welfare to society has declined due to the reduction in ecosystem services. If rangelands are restored it is further believed that ecosystem functionality will be rehabilitated, leading to an increased supply of ecosystem services and an overall increase in welfare. Valuation of rangeland ecosystem services provides a means of estimating the total benefit of rangeland restoration and it is, therefore, a tool for identifying investment opportunities and incentive mechanisms for restoration and can be useful for influencing national policy agendas.

2. Objectives of the study

The objective of this study is to provide the baseline information representing the socio-economic status of the local communities in the Badia that is divided into three areas: (1) the northern Badia, (2) the middle Badia, and (3) the southern Badia. The baseline includes information on the status of the current socio- economic information of the local communities at the household level, livestock and rangeland resources, water and energy resources, which will form the basis for any management and restoration planning process.

3. Methodology

3.1. Sampling and data collection

The survey aimed at collecting information from the local communities within Jordan Badia, therefore respondents were interviewed from Al-Mansoora village in the northern Badia; from Al-Azraq city in the middle Badia, and from Al-Manshiyeh village in the southern Badia. A sample of 150 respondents from the local community was considered as convenient for representing the local communities for each area (north, middle, and south). The communities were considered having homogenous and there was no specific profile for selecting respondents beyond their willingness to participate in this study; therefore the respondents were targeted randomly and data collected using a face to face method. A structured questionnaire was developed and pre-tested. The questionnaire aimed to collect information and capture the local community's socio-economic status with special focus on the quality of different services they receive within their community.

The questionnaire was divided into 5 parts, which were revolved over the following topics:

- Detailed information on the household type

- Family health and socio-economic characteristics for the head of the household, wife(s) and children

- Household income sources

- Detailed information on water resources, health services, educational services, energy sources, and food requirements

- Detailed information on land and livestock ownership, in case respondents own agricultural or/and pastoral land and livestock.

3.2. Statistical analysis

Specific data sheets were designed and coded based on the questionnaire parts and questions. Data were entered and analyzed using a program of "Statistical Package for the Social Sciences" (SPSS version 20). Quantitative techniques were used to generate baseline information based on the respondents' information and perceptions. Several tables synthesized the information regarding specific parameters on average, standard deviation, max and min values. While other parameters were generated based on the respondents' answers on open questions, these parameters will be presented in frequencies and percentages. These parameters are expected to visualize the current socio-economic status of the local communities in Badia, besides reflecting the current used resources and services. Nevertheless, the output of using mixed methods of quantitative and qualitative methods strongly recommends that future studies should be supplemented by interviews and focus group discussion in order to provide additional detail in the findings.

4. Results and discussion

In this section, the results reflecting the socio-economic status of the local communities will be provided based on the three areas of Badia, whereas the last section will provide a comparison of the socio-economic status between the three areas of Badia

Each section is divided into the following subsections:

- Detailed information on the household residency

- Family health and socio-economic characteristics
- Household income sources
- Detailed information on resources and services provided to the local community
- Detailed information on land and livestock ownership

The information provided in the following subsections demonstrates what we deem to be the most interesting and relevant findings. For further information and additional details, annexes (A-1, A-2, A-3) provide complete sets of tables' that represent the descriptive analysis of the questionnaire.

4.1 Northern Badia

4.1.1. Detailed Information on the Household characteristics

The sample had provided general information on their household characteristics. Most of the respondents' are residents of Al-Mansoora village representing 63.3 % of the sample. The respondents' residency type was mostly a permanent residency rather than temporary (92.7%), and their homes were mainly made of brick material (68.0%). About 74.7% of respondents homes contain 3-4 rooms and 94% of them don't own other houses rather than the one they live in. Besides, most of the respondents don't share their houses with other families except for 5.3% of the sample who share their household with their married children (4%), their married siblings (0.7%) or with their parents (0.7%).

Table 1: Household characteristics of families in Northern Badia

	Type	Number	Percentage %
Family residency type	Permanent	139	92.7
	Non-permanent	7	4.7
Residence type	Stone house	42	28
	Brick house	102	68
Do you own other houses	No	141	94
	Yes	5	3.3
Do you share your home with another family	No	138	92
	Yes	8	5.3
With whom do you share residency	My married	6	4
	My married	1	0.7
	My parents	1	0.7
Number of rooms	One room	1	0.7
	Two rooms	9	6
	Three rooms	57	38
	Four rooms	55	36.7
	Five rooms	22	14.7

4.1.2. Family Health and Socio-economic Characteristics

This section of the questionnaire collected information about the head of the family, wife (s) and children on the following: (1) Age (2) Educational level (3) Health status (4) type of sickness or/and disability (5) Does he/she work (6) type of work (if he/she works).

The average age of the family's heads in the northern Badia is 47.7 years (±12.06). About 41.3% of the sample has a secondary educational level, while more than 18 % of the household head had earned undergraduate and graduate degrees. Besides, 81.3 % of the head of the family was healthy, while about 16% stated for having chronic diseases (i.e. high blood pressure, diabetes, etc), besides other 1% reported for having disabilities. Moreover, 70.7% of the heads of houses

are currently working, mostly at the military (23.3%), retired (24%), and free business (10.0%). The majority of the male respondents have one wife (92.6%), while only 6.4% are married to a second wife. The majority of the first wife had an average age of 45.4 years (±12.34) and only 22.7% work mostly as teachers or as a governmental employee.

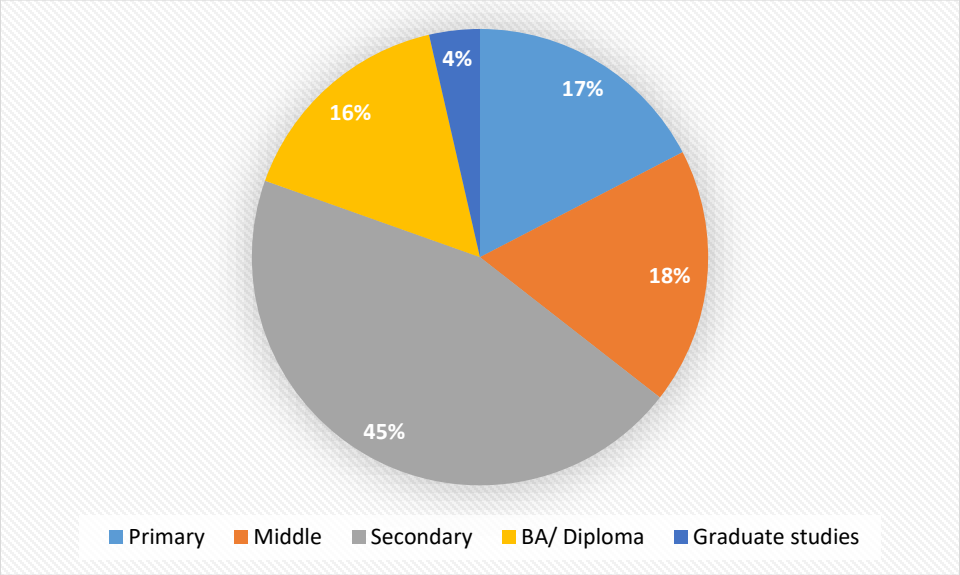

Figure 1: The education level of the household head in Northern Badia

Furthermore, specific questions were aimed to gather information about the family members and relevant characteristics of education and health status. The analysis of this section is introduced in annex A-1, as the questions in this section did not specify the order of children, so this database of children for each family could not generate general results or conclusions about family members of age more than 18 years or less. Nevertheless, each family in this region had one up to nine children. For further information and additional details, annex (A-1) provides a complete set of tables represent the health and socio-economic characteristics of the head of the family, first and second wife and all children.

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4.1.3. Household income

In this section, the income was defined in three types: public sector, private sector, and private business. Moreover, the income sources were investigated based on the type of agricultural practices: farming or/ and livestock breeding. Later, the respondents were asked about any type of domestic business at the household level. The household monthly income ranged from 50 JD to 2500 JD, thus the average monthly income is about 662.3 JD (± 503.6JD). The Majority of the respondents depend on jobs from the public sector as main income source (66.9%) mostly in Military (35.3%) and as retired (14.7%), while the other 11.5% depends on jobs in private sector and 10.8% depend on free business and breeding as main income sources (Table 2). None of the respondents had reported any type of domestic business at the household level.

Table 2: Respondents Sources of Income in Northern Badia

Question	Percentage %
Family income sources	
Public sector job	66.9
Private sector job	11.5
Free business job	10.8
Breeding	10.8

4.1.4. Detailed Information on Resources and Services Provided to the Local Community

This section aimed to collect information, and respondents' opinions on the different set of governmental services provided to the local community within the northern Badia, as follows:

Water Resources

This section aimed to indicate the availability, accessibility and quality of water sources in this region, which reflects the water source security of the local community in northern Badia.

The average monthly water consumption among the respondents is about 10.7 m^3 (±14.6), and the average received invoice for water consumption is about 34.7014 JD (±34.40769). Moreover, about 72.3% of the respondents are getting their water supply from the domestic water network that is operated by the water company in the northern area of Jordan, while the rest of the households are forced to obtain water supply from private tanks that cost higher than the domestic network. In addition, the local community is still facing some problems and setbacks regarding their water supplies due to several reasons, mainly for the shortage in water supply for the whole area (29.9%) and the high prices which reflect additional burden on the living costs (Figure 2).

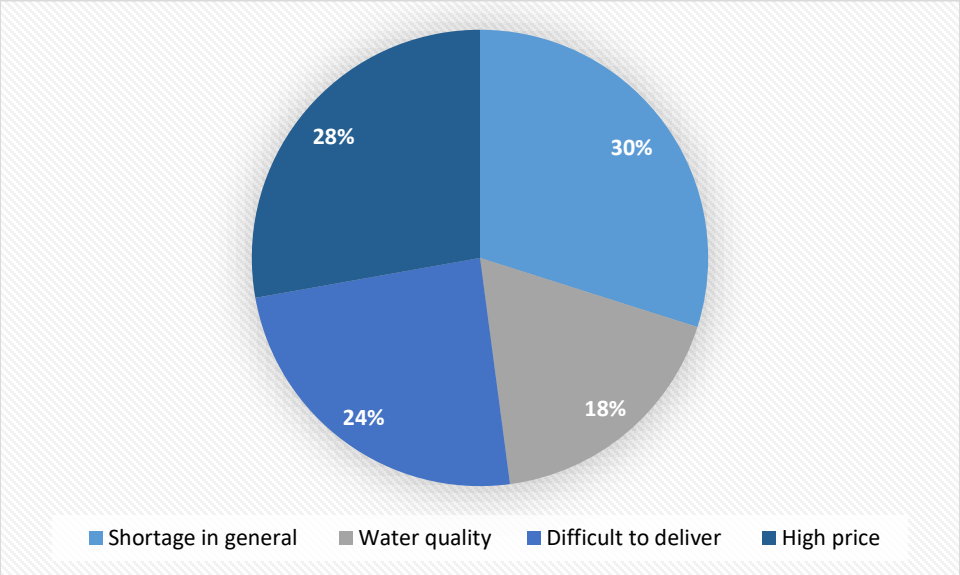

Figure 2: Problems Faced about Water Resources in Northern Badia

Health Services

This section deals with information relevant to health insurance, services type and location, the most provable treatment and the most important obstacles they face in this sector. The majority of the respondents' families have health insurance, where 60.7% receive their health services through military insurance at hospitals, and the other 23% receive their own governmen health insurance. The closest nearby hospital was around 19.1 km (±9.0), while the average distance to the closest health center was about 4.2 km (±3.5). Respondents also faced problems related to

health services, mostly the lack of monthly treatments (35%), lack of medical staff (11%), among others as presented in Figure 3 and with additional details in annexA-1.

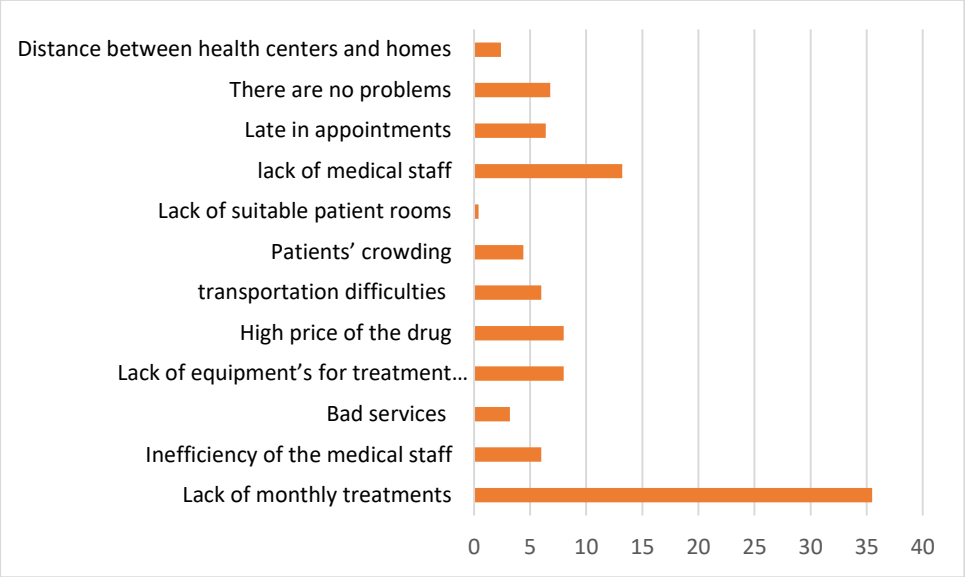

Figure 3: Problems Faced about Health Services in Northern Badia

Educational Services

This section is aimed to provide information about the educational services provided by different institutions for the school level. Where 59.3% of the respondents indicated that their children receive education at public school and the other 10% at the private schools, while the rest of them did not provide any information about this service. The average distance of nearest male schools is 4.3 km (±4.9), as only 35.3% of these male schools are comprehensive schools and the rest are up to the 10th grade only. On the other hand, the nearest female school is about 3.1 km (±2.4) average distance, and only 35.3% of these schools include grade levels; from level 1 till twelfth grade. The educational services in northern Badia face many problems and obstacles as indicated by the respondents. Some of the main problems are that some of the schools are rented buildings, and there is a lack of appropriate educational services (15%), the rented building as a location of the school (18.4%), besides to the decrease in the quality of the overall education level (13.8%), besides other obstacles as presented in figure 4.

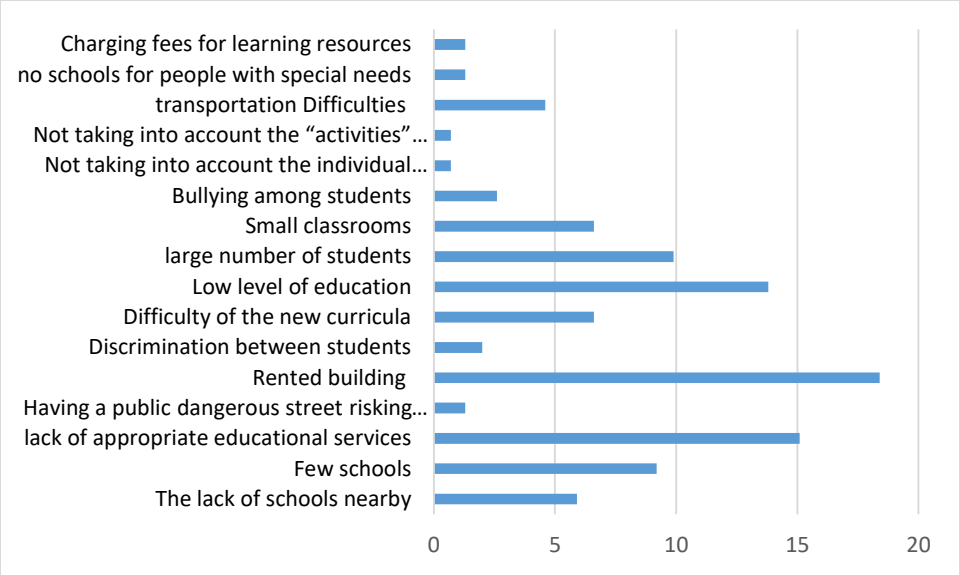

Figure 4: Problems Faced about Educational Services in Northern Badia

Energy Resources and food needs

This section deals with the main energy sources of the households for different uses; heating, cooking, and lighting. The results show that 98% of the respondents use electricity as the main light source. As for heating purposes, 67.3% use gas heaters, while 14.7% use firewood and another 6.7% use pressed olive residues for heating in the winter season. Finally, gas stoves are used for cooking purposes by 89.3% of the respondents.

On the other side, the majority of the respondents get their daily food needs from the nearest local market (98.7%) that about all the needs of vegetables and groceries, while very few depend on-farm production, especially for animal products. The local community within this study depends mostly on many food products for their daily consumption such as vegetables (20.5% of the respondents) that is brought from local markets, and bread (18.6% of the respondents) that is mainly bought also from the local bakeries as 90.7%, while still few depend on homemade bread. Other food products such as meat consist of 16.5% of the samples, besides, followed by rice and legumes that consist of about 13.5% and 10.8% of the community, respectively. This section is aimed to provide information about the educational services provided by different institutions for the school level. Where 59.3% of the respondents indicated that their children receive education at public school and the other 10% at the private schools, while the rest of

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Table 3: Food products widely used by the respondents from Northern Badia

Food product	Frequency	Percent %
Rice	**71**	**13.5**
Bread	**98**	**18.6**
Meat	**87**	**16.5**
Fish	**8**	**1.5**
Vegetables	**108**	**20.5**
Dairy products	**35**	**6.7**
Legumes	**57**	**10.8**
Fruits	**31**	**5.9**
Poultry	**25**	**4.8**
Oil	**3**	**0.6**
Olives	**3**	**0.6**

4.1.5. Detailed Information on Land and Livestock Ownership

This section was designated to collect information in case the either respondents own (1) Agricultural or/and pastoral land and (2) Livestock.

Agricultural or/and Pastoral Land Owned by the Respondents

The respondents from northern Badia had an average of 12.36 dunum (±20.9) owned land; an average of 10.28 dunum (±4.7) of which is used for agricultural purposes and an average of 47.7 dunum (±49.2) is used as a pastoral land for livestock grazing. Respondents cultivate their land mainly for the purpose of using the land as a pasture for livestock they own (8%) or for trading (1.3%).

Lands owned and cultivated by the respondents are mainly planted with barley, wheat and olives (75%, 12.5%, and 12.5%, respectively). The crops are planted in rainfed cropping systems (8.7%). Respondents prefer these crops rather than other crops to be used as pasture (48%), followed by for their direct economic profit (32%), and for the sake of preserving the land (20%). However, some areas of owned lands are not entirely cultivated mainly due to the shortage of water, soil infertility and financial ability besides other reasons as described in Table 4.

Table 4: Reasons behind not Planting the Entire Owned Lands in Northern Badia

Reason	Percentage %
Lack of financial sources	18.4
Soil infertility	30.6
water shortage	38.8
Overgrazing	12.2

Livestock Owned by the Respondents

Ten percent of the respondents own sheep with an average of 16.6 head (±29.6), while 9.3% own goats with an average of 222.0 heads (±2.5). The ownership types of this livestock are 16% individual ownership and 1.3% shared ownership. The breeding style is 9.3% in a closed barn and 7.3% in an open filed. Grazing and fodder is the main source of livestock feed.

The most common months of grazing are spring (10.7%) and winter (0.7%). 8% of the respondents tend to do their livestock grazing in their own lands, 5.3% in rented lands and 4.7% in communal pasture lands. While few owners don't travel a lot with their livestock flock during the grazing season, 10.7% of the respondents move around with their livestock during the grazing season, especially in winter. Thus, grazing is widely carried among the respondents for especially the limited availability of grazing plants besides other reasons described in Figure 5.

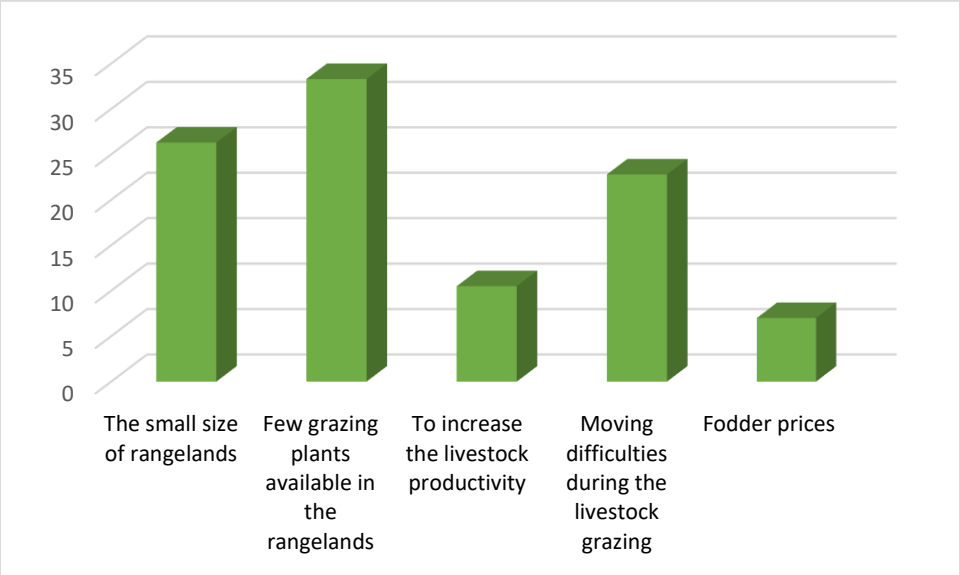

Figure 5: Grazing Preference Reasons in Northern Badia

Respondents also use fodder as a supportive source of feeding their livestock flocks. The livestock depends on barley, hay, bran, corn, wheat, and bread for fodder supplements. Fodder types used and their average amount and price at the local market are described in Table 5. The results of this section reflect high variations of the amount and the price of fodder used in the northern Badia region; therefore, the data used in this section should be used with care.

Table 5: Used Fodder Amounts and Prices per Season in Northern Badia

Question	Amount Mean (±SD)	Price Mean (±SD)	Percent %
Type of fodder used			
Barley	3.4 (937.1)	1.0 (1964.6)	45.2
Hay	1.2 (2111.3)	1.4 (2140.6)	22.6
Bran	5.9 (1087.2)	1.1 (1791.64)	21.0
Corn	30.0 (18.2)	20.0 (0.0)	6.5
Crusty bread	2.0(0.0)		3.2
Wheat	20.0	20.0)	1.6

Besides livestock feeding, other financial burdens posed on the livestock owners for the treating animal common diseases. Such common diseases reported by the respondents are mostly intestinal poisoning. The livestock owners, therefore, tend to inseminate the livestock either naturally (81.8%) or artificially (18.2%). But if the livestock gets sick, they mostly treat them at veterinarians (16.7%) or through the agricultural foundations and institutions (2%).

Female members of the local community have a vital role in raising livestock, where 33.8% they milk the sheep and goats, the other 26% produce dairy products, 19.5% graze with the livestock, 15.6% take care of the newborns and 5.2% help in marketing.

Livestock owners with the local community of Northern Badia face some obstacles with the agriculture and livestock raising sector. The prioritized obstacles recognized by the respondents are the water shortage (27.1%), the high prices of livestock (17.3%), lack agricultural areas and lands for cultivation (16.9%) and the high prices of fodder (14.9%). Some of the proposed projects by the respondents reported several suggestions especially the reduction in fodder prices and digging wells, additional suggestions and opinions are described in Table 6.

Table 6: Projects Proposed by the Respondents to Overcome Obstacles with the Agriculture and Livestock Sector in Northern Badia

Proposed project	Frequency	Percent %
Donors help and provide animal and agricultural production	7	5.3
Wells drilling	30	22.7
Reducing livestock prices	21	15.9
Reducing fodder prices	24	18.2
Livestock care	4	3.0
Opening projects for women to manufacture dairy products	1	0.8
Barley production and improving the chances of its uses	4	3.0
Increasing farmers' income by increasing production capacity	7	5.3
Supporting the efforts of the concerned national programs and agencies, especially scientific research	4	3.0
Establishing reserves	5	3.8
Providing mobile veterinary clinics	11	8.3
Opening factories for dairy marketing	4	3.0
Crop cultivation according to climate	4	3.0
Provide jobs	3	2.3

4.2 Middle Badia

4.2.1. Detailed Information on the Household characteristics

The sample had provided general information on their household characteristics. Most of the respondents' are residents of Al-Azraq representing 95.7 % of the sample. The respondents' residency type were mostly permanent residency (76.8%) rather than temporary (18.1%), and the buildings were mainly made of brick material (76.8%), while few were living in stone houses or tents. All respondents had between 1-5 rooms in their homes, 94.2% of which don't own more than one house except they were living in. Besides, most of the respondents didn't share their houses with others, while only 15.9% of the sample shared their houses with married children, parents or married siblings.

Table 7: Household characteristics of families in Middle Badia

	Type	**Number**	**Percentage %**
Family residency type	Permanent	**106**	**76.8**
	Non-permanent	**25**	**18.1**
Residence type	Stone house	**14**	**10.1**
	Brick house	**106**	**76.8**
	Tent	**15**	**10.9**
Do you own other houses	No	**130**	**94.2**
Do you share your home with another family	No	**111**	**80.4**

4.2.2. Family Health and Socio-economic Characteristics

This section of the questionnaire aimed to collect information about the head of the family, wife (s) and children regarding the following aspects: (1) Age (2) Educational level (3) Health status (4) type of illness or/and disability (5) employment (6) type of work (if he/she works).

The average age of the family's heads in the middle Badia was about 48.1 years (±12.9). About 39.9% of the sample had a secondary educational level, while about 14.4 % of the household head had earned undergraduate and graduate degrees. Besides, about 79.7% of the head of the family admitted to being healthy people, whilst about 15.9% stated for having chronic diseases (i.e. high blood pressure, diabetes, etc) and none have reported having any disabilities. Moreover, 65.9% of the heads of the house were currently working mostly were retired (5.2%), independent business (9.4%), and military (8.7%). The majority of the male respondents had one wife, while few are married to a second wife and none of the wives had been working.

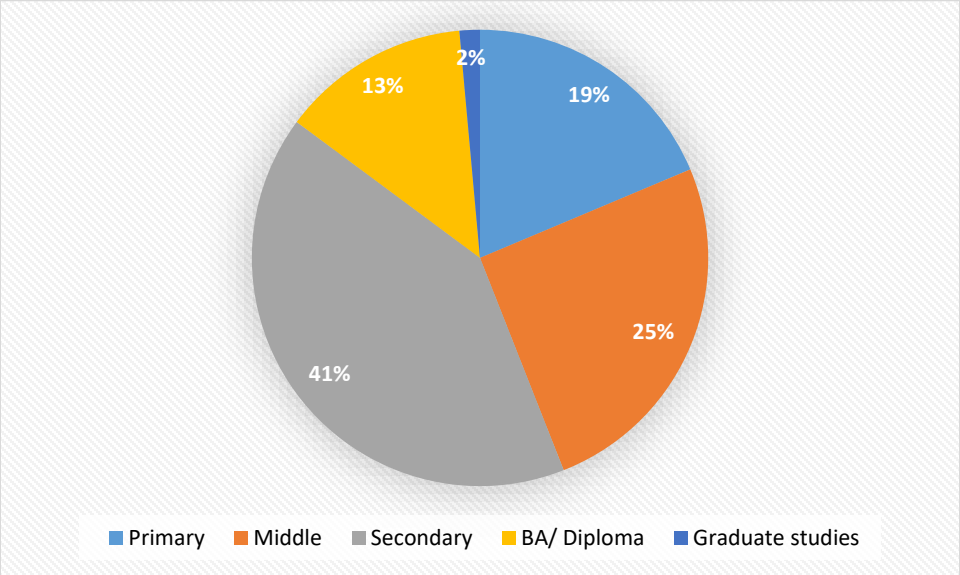

Figure 6: The education level of the household head in middle Badia

Furthermore, specific questions were aimed to gather information about the family members and relevant characteristics of education and health status. The analysis of this section is introduced in annex A-2, as the questions in this section did not specify the order of children, so this database of children for each family could not generate general results or conclusions about family members of age more than 18 years or less. Nevertheless, each family in this region had one up to nine children. For further information and additional details, annex (A-2) provides a

complete set of tables represent the health and socio-economic characteristics of the head of the family, first and second wife and all children.

4.2.3. Household Income

The household monthly income ranged from 50 JD to 900 JD, thus the average monthly income is about 319.1 JD (± 139.3 JD). The Majority of the respondents depend on jobs from the public sector as the main income source (49.2%), while other (11.6%) retired and the other 8.7% worked at the Military. While other 26.6% depended on private business and 3.3% depending on jobs in the private sector as the main income sources (Table 8). Moreover, about 5.1% of the respondents had reported "Diary processing" as a domestic business at the household level, while 0.7% reported jams production. Very few households depend on agricultural activities for income.

Table 8: Respondents Sources of Income in Middle Badia

Question	Percentage %
Family income sources	
Public sector job	**49.2**
Private sector job	**13.3**
Free business job	**26.6**
Agricultural practices	**3.1**
Breeding	**7.8**

4.2.4. Detailed Information on Resources and Services Provided to the Local Community

This section aimed to collect information and respondents opinions on the different sets of governmental services provided to the local community within the middle Badia region, as follows:

Water Resources

This section aimed to indicate the availability, accessibility, and quality of water sources in this region, which reflects the water source security of the local community in the middle Badia region.

The average monthly water consumption among the respondents is about 26 m3 (±21.7), and the water cost ranged from 5JD per month up to 213 JD per month, thus the average received an invoice of water consumption is about 31.1 JD (±46.4), which reflects high variation in water costs among all households. Moreover, about 85.1% of the respondents received their water supply from the domestic water network, while the other 12.7% of the households obtain their water supply from private tanks and 2.2% depending on water springs. The local community highlighted several problems and setbacks regarding their water supplies, mainly for the high prices of water (35.2%) besides the low water quality and other problems (Figure 7).

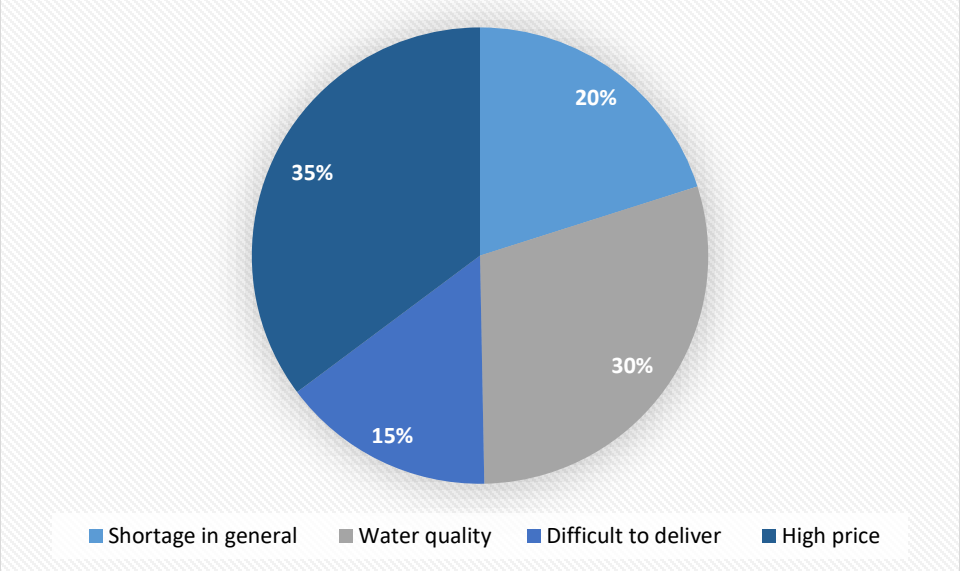

Figure 7: Problems Faced about Water Resources in Middle Badia

Health Services

This section deals with information relevant to health insurance, services type and location, the most desired treatment and the significant obstacles that respondent faces in this sector. As reported most of the respondents' families have health insurance, where 78.3% receive their health services by public hospitals, and the other 11.6% receive their own governmental health treatments. The closest nearby hospital was around 68.5 km (±32.7), while the average distance to the closest health center was about 6.6 km (±8.9). Respondents also faced several problems related to health services, most were about the lack of specialist doctors (22.7%), and lack of treatments of chronic diseases (20.5%), besides additional problems as presented in Figure 8 and with additional details in Annex A-2.

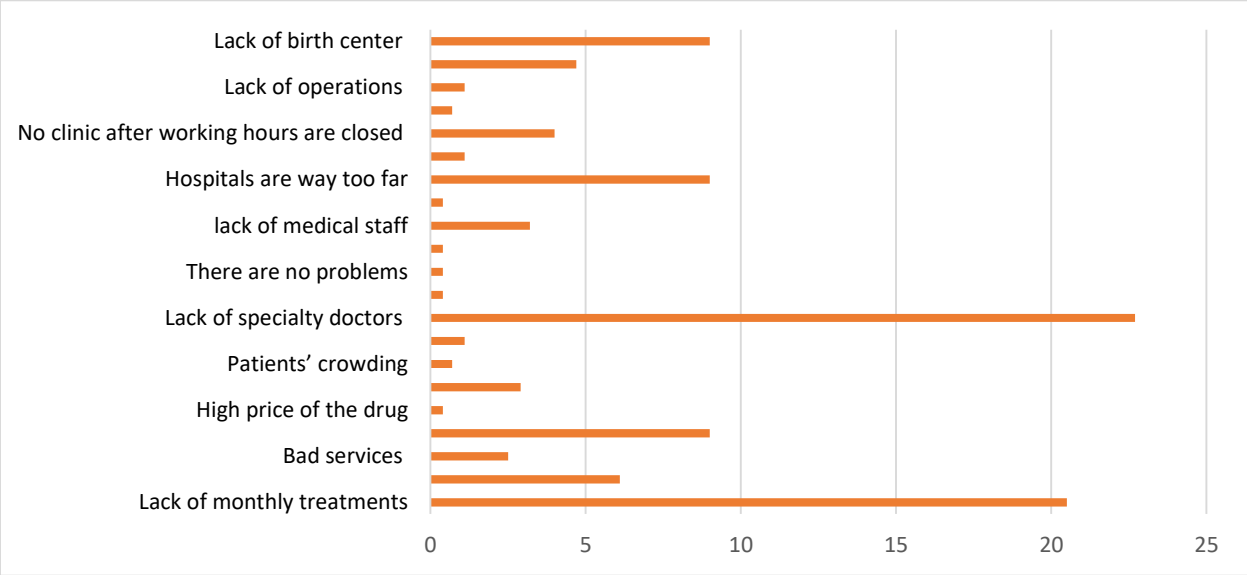

Figure 8: Problems Faced about Health Services in Middle Badia

Educational Services

This section is aimed to provide information about the educational services provided by different institutions for the school education services. Where, 81.2% of the respondents indicated that their children received education at public schools and the rest at the military schools (1.4%), besides, few respondents did not provide any information about this service. The average distance of nearest male students schools was about 3.0 km (±7.3), as only 32.6% of these male schools were classified as comprehensive schools and the rest were elementary schools that admitted only students up to the 6th grade only. On the other hand, the nearest female school is

about 1.7 km (±2.7) average distance, and only 34.1% of these schools included all grade levels. The educational services in Middle Badia faced many problems and obstacles as indicated by the respondents. Some of the main problems were the lack of appropriate educational services (17.4%), limited school capacities compared with the number of students (13.7%), a limited number of teachers (11.8%), besides other obstacles as presented in figure 9.

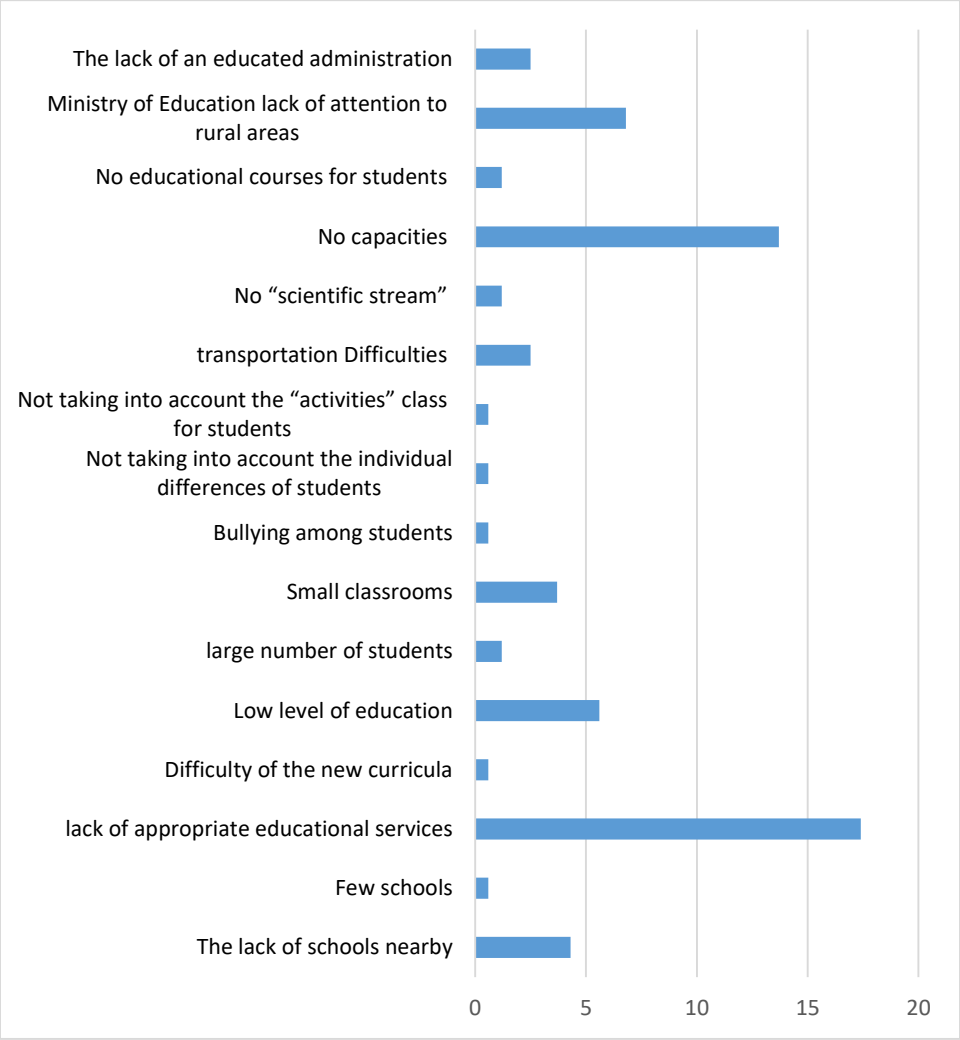

Figure 9: Problems Faced about Educational Services in Middle Badia

Energy Resources and food needs

This section deals with the main energy sources used by households for different uses; heating, cooking, and lightning. The results showed that 79.0% of the respondents use electricity as the main light source, while only 8.0% use electricity generators and the other 2.2% use solar energy. As for heating purposes, 66.0% use gas heaters, while 13.3% use firewood, and other 4.0% of which depend on pressed olive residues. Finally, gas stoves are used mostly for cooking purposes by 44.9% of the respondents, while 21.0% use diesel gas heaters, 15.2% use firewood for cooking, and 8.7% use electric heaters.

On the other side, the majority of the respondents get their daily food needs from the nearest local market (89.1%) that about all the needs of vegetables and groceries, while very few depend on-farm production, especially for animal products. The local community within this study depends mostly on many food products for their daily consumption such as vegetables (25.4% of the respondents), and legumes (12.2% of the respondents). Other food products such as meat were consumed by 11.9% of the samples and followed by rice and poultry (10.5%, for each).

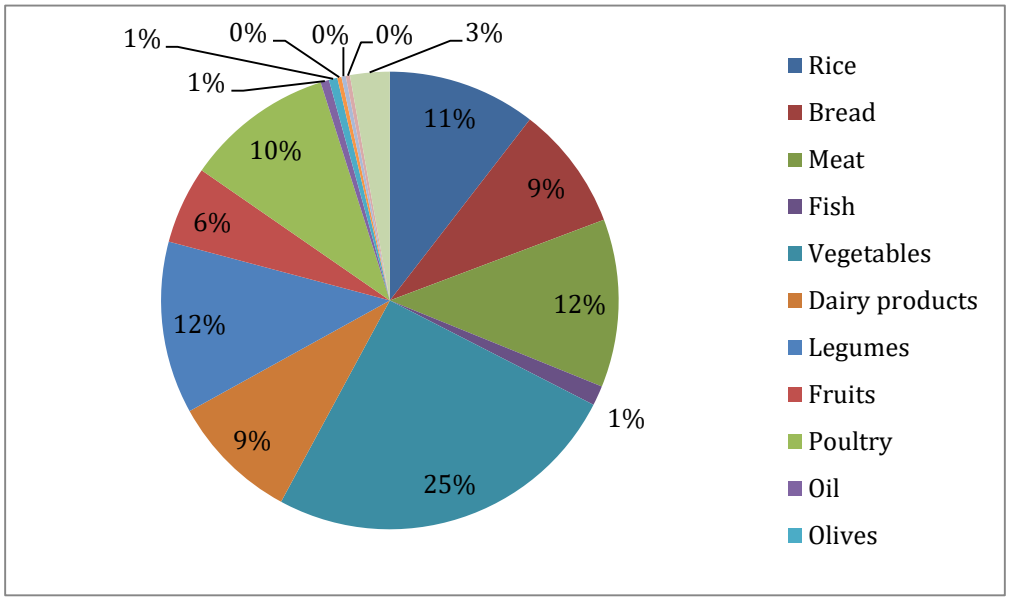

Figure 10: Food products widely used by the respondents from Middle Badia

4.2.5. Detailed Information on Land and Livestock Ownership

This section was designated to collect information in case the either respondents own (1) Agricultural or/and pastoral land and (2) Livestock.

Agricultural or/and Pastoral Land Owned by the Respondents

The respondents from the middle Badia owned land in an average of 6.4 dunum (±11.1); and about 17.2 dunum (±31.6) of agricultural land, furthermore the respondents reported that they use pastoral land for livestock grazing, which was in average about 8.7 dunum (±7.3). The land owned by the households in this region showed high variations sizes. Respondents cultivated their land mainly for the purpose of family consumption of agricultural products (10.1%), and for using the land as a pasture for livestock they own (1.4%) or for trading (.7%).

Lands owned and cultivated by the respondents were mainly planted with olive, vegetables, clover, and Pomegranate (43.8%, 18.8%, 12.5%, and 12.5%, respectively). The crops were mostly planted in rainfed cropping systems (7.2%), while few are irrigated using groundwater (2.9%). Respondents prefer these crops rather than other crops for their high and quick economic profit (42.9%), and for livestock consumption and family consumption (28.6% each). But some areas of owned lands remain not entirely cultivated mainly due to the limited financial ability, shortage of water, soil infertility besides other reasons as described in Table 9.

Table 9: Reasons behind not utilizing the households' owned land in Middle Badia

Reason	Percentage %
Financial inability	**39.3**
Soil infertility	**25.0**
water shortage	**32.1**
Overgrazing	**3.6**

Livestock Owned by the Respondents

Fifty-seven percent of the respondents own goats with an average of 1.3029 heads (±252.2), which reflects high variation among livestock numbers among respondents. While about 35.7% of the families owned sheep with an average of 51.7 heads (±29.5) and only one respondent own 1 camels (7.1% of the sample). The respondents pointed out that all livestock ownership was individual ownership and there was no shared livestock among families. The breeding style is 4.3% in a closed barn and 2.2% in an open barn. Grazing and fodder is the main source of livestock feed.

Only one respondent from middle Badia reported the common grazing months and it was the spring season. About 5.8% of the respondents tend to do the livestock grazing in communal pasture lands, while 0.7% in their own lands. Moreover, 4.3% of the respondents' owners don't travel a lot with their livestock flock during the grazing season, but 2.2% of the respondents move around with their livestock during the grazing season mostly either by vehicle or foot. Thus, grazing is widely carried among the respondents, especially the small size of rangelands beside other reasons described in Figure 11.

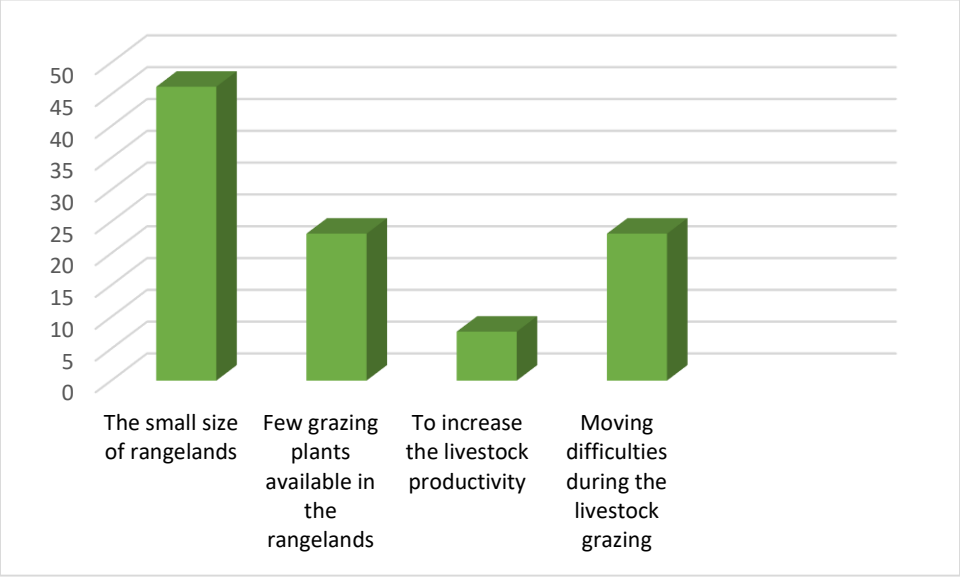

Figure 11: Grazing Preference Reasons in Middle Badia

Respondents also use fodder as a supportive source of feeding their livestock flocks. The livestock depends on barley, bran, and clover for fodder supplements. Fodder types used and

their average amount and price at the local market are described in Table 10. The results of this section reflect high variations of the amount and the price of fodder used in the middle Badia region, therefore, the data used in this section should be used with care.

Table 10: Used Fodder Amounts and Prices per Season in Middle Badia

Question	Amount Mean (±SD)	Price Mean (±SD)	Percent %
Type of fodder used			
Barley	**2.5 (1.2)**	**3.4 (84.1)**	**40.0**
Bran	**6.6 (4.6)**	**1.0(153.0)**	**30.0**
Clover	**24.2 (15.0)**	**35.0 (0.0)**	**30.0**

Besides livestock feeding, other financial burdens posed on the livestock owners for treating animal common diseases. Such common diseases reported by the respondents are mostly poisoning. The livestock owners therefore fully tend to inseminate the livestock naturally (6.5%). But if the livestock gets sick, they mostly seek treatments form the Ministry of Agriculture services (3.6%), the agricultural foundations and institutions (1.4%), or private veterinarians (0.7%). Female members of the local community have a vital role in raising the livestock, where 35.0% milk the sheep and goats, 30.0% produce dairy products, 20.0% take care of the newborns, 10.0% graze with the livestock and 5.0% help in fattening the cattle.

Livestock owners with the local community of middle Badia face some obstacles with the agriculture and livestock raising sector. The prioritized obstacles recognized by the respondents are the water shortage (21.8%) and the lack of agricultural areas and lands for cultivation (14.1%), overgrazing (11.5%) and lack of pasture (10.3%). Some of the proposed projects by the respondents reported several suggestions especially digging wells for water supply and establishing rangeland reserves, additional suggestions and opinions are described in Table 11.

Table 11: Projects Proposed by the Respondents to Overcome Obstacles with the Agriculture and Livestock Sector in Middle Badia

Proposed project	Frequency	Percent %
Donors help and provide animal and agricultural production	**2**	**5.6**
Wells drilling	**9**	**25.0**
Reducing fodder prices	**2**	**5.6**
establishing reserves	**8**	**22.2**
Opening factories for dairy marketing	**2**	**5.6**
Fodder distribution	**3**	**8.3**
Pastures cultivation	**4**	**11.1**
Training and rehabilitation	**2**	**5.6**

4.3 Southern Badia

4.3.1. Detailed Information on the Household characteristics

The sample from this region provided general information on their household characteristics. Most of the respondents' were residents of Al-Manshiyeh village representing 64.7 % of the sample. The respondents' residency types were entirely permanent residency rather than temporary (100%), and their homes were mostly made of brick material (82.0%). All respondents have at least two rooms in their homes and they didn't own other houses rather than the one they live in. Besides, most of the respondents didn't share their houses with other families except for 2% of the sample who share their household with their married children, married siblings or with the parents (0.7% each).

Table 12: Household characteristics of families in Southern Badia

	Type	Number	Percentage %
Family residency type	Permanent	**150**	**100.0**
	Non-permanent	**0**	**0**
Residence type	Stone house	**25**	**16.7**
	Brick house	**123**	**82.0**
	Tent	**2**	**1.3**
Number of rooms	One room	**0**	**0**
	Two rooms	**8**	**5.3**
	Three rooms	**57**	**38.0**
	Four rooms	**64**	**42.7**
	Five rooms	**18**	**12.0**

4.3.2. Family Health and Socio-economic Characteristics

This section of the questionnaire aimed to collect information about the head of the family, wife (s) and children on the following: (1) Age (2) Educational level (3) Health status (4) type of sickness or/and disability (5) employments (6) type of work (if he/she works). The average age of the family's heads in the southern Badia was 45.4 years (±11.4). About 47.3% of the sample had passed the secondary educational level, while more than 8% of the household head had earned undergraduate and graduate degrees. Besides, 87.3% of the head of the family was healthy, while about 11.3% declared the fact of having chronic diseases (i.e. high blood pressure, diabetes, etc) and none have reported having any disabilities. Moreover, 80.7% of the heads of the houses were currently working. The household heads were retired (33.3%), working at the military forces (10.7%), and private business (6.7%). The majority of the male

respondents were married to a single wife (95.3%), while only 7.7% were married to a second wife, and one respondent to a third wife. 20% of the first wives were working, mostly as teachers, while only 1.3% of the second wife's work as either a teacher or in the local municipality.

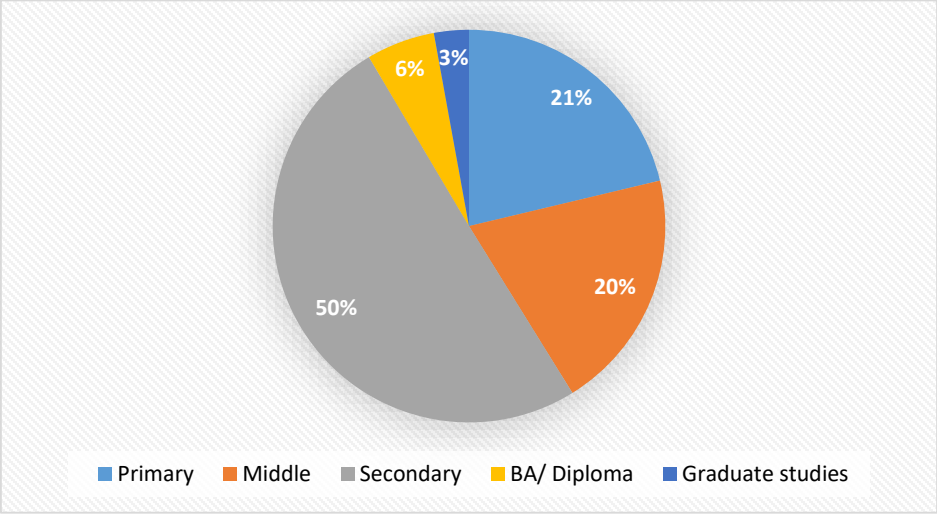

Figure 12: The education level of the household head in southern Badia

Furthermore, specific questions were aimed to gather information about the family members and relevant characteristics of education and health status. The analysis of this section is introduced in annex A-3, as the questions in this section did not specify the order of children, so this database of children for each family could not generate general results or conclusions about family members of age more than 18 years or less. Nevertheless, each family in this region had one up to nine children. For further information and additional details, annex (A-3) provides a complete set of tables represent the health and socio-economic characteristics of the head of the family, first and second wife and all children.

For further information and additional details, annex (A-3) provides a complete set of tables represent the health and socio-economic characteristics of the head of the family, first and second wife and all children.

4.3.3. Household income

In this section, the income was classified into three types: public sector, private sector, and private business. Moreover, the income sources were investigated based on the type of

agricultural practices: farming or/ and livestock breeding. Later, the respondents were asked about any type of domestic business at the household level. The household monthly income ranged from 90 JD to 2000 JD, thus the average monthly income is about 459.7 JD (± 330.1 JD). The Majority of the respondents depend on jobs from the public sector as main income source (68.0%) mostly retired (21.3%) and worked at the Military forces (20.7%), while the other 11.4% depends on jobs in private sector and 7.3% depend on farming as main income source (Table 14). About 4.7% of the respondents had reported "Processing of dairy products" as a domestic business at the household level.

Table 13: Respondents Sources of Income in Southern Badia

Question	Percent %
Family income sources	
Public sector job	**68.0**
Private sector job	**11.4**
Free business job	**8.0**
Agricultural practices	**.6**
Breeding	**12.0**

4.3.4. Detailed Information on Resources and Services Provided to the Local Community

This section aimed to collect information and respondents opinions on the different set of governmental services provided to the local community within the southern Badia region, as follows:

Water Resources

This section aimed to indicate the availability, accessibility, and quality of water sources in the southern Badia region, which reflects the water source security of the local community in southern Badia. The average monthly water consumption among the households was about 95.4 m3 (±309.3), and the average received invoice for water consumption was about 19.0 JD

(±15.8). Moreover, about 93.4% of the respondents were getting water supplies from the domestic water network, while 6% of the households depended on water springs and the rest of households obtain the water supply from private tanks. The local community is still facing some problems and setbacks regarding their water supplies, mainly for the shortage in water supply for the whole area (32.0%) and the high prices which reflected additional burden on the living costs (Figure 13).

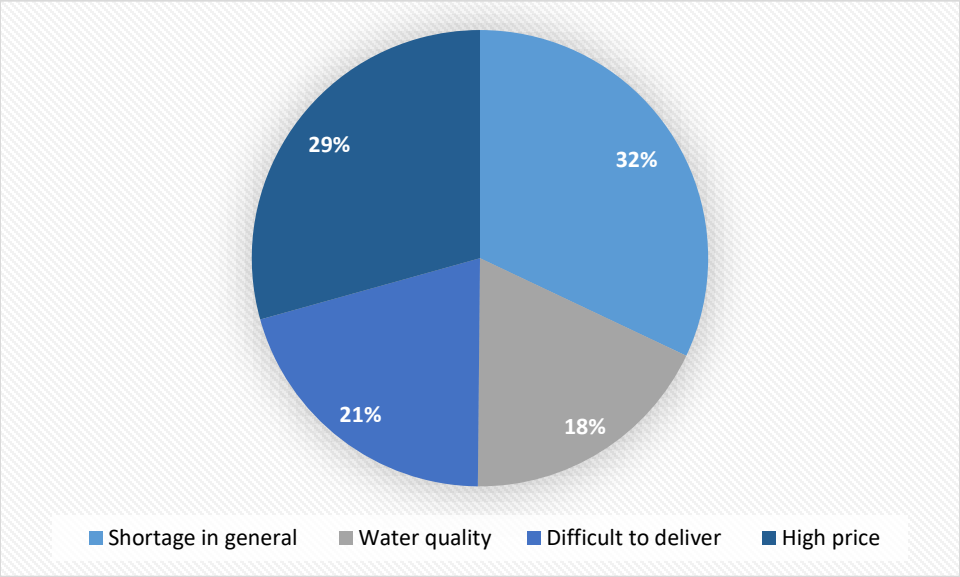

Figure 13: Problems Faced about Water Resources in Southern Badia

Health Services

his section deals with information relevant to health insurance, services type and location, the most desired treatment and the most important obstacles families faced in this sector. The majority of the respondents' families have health insurance, where 48.0% receive their health services by military insurance at hospitals, and the other 36.7% receive their own government health insurance. The closest nearby hospital was around 21.9 km (±11.6), while the average distance to the closest health center was about 5.7 km (±6.5). Respondents also faced problems related to health services, mostly the lack of monthly treatments (23.6%), lack of medical staff

(14.3%), additional to other problems as presented in Figure 13 and additional details in Annex A-3.

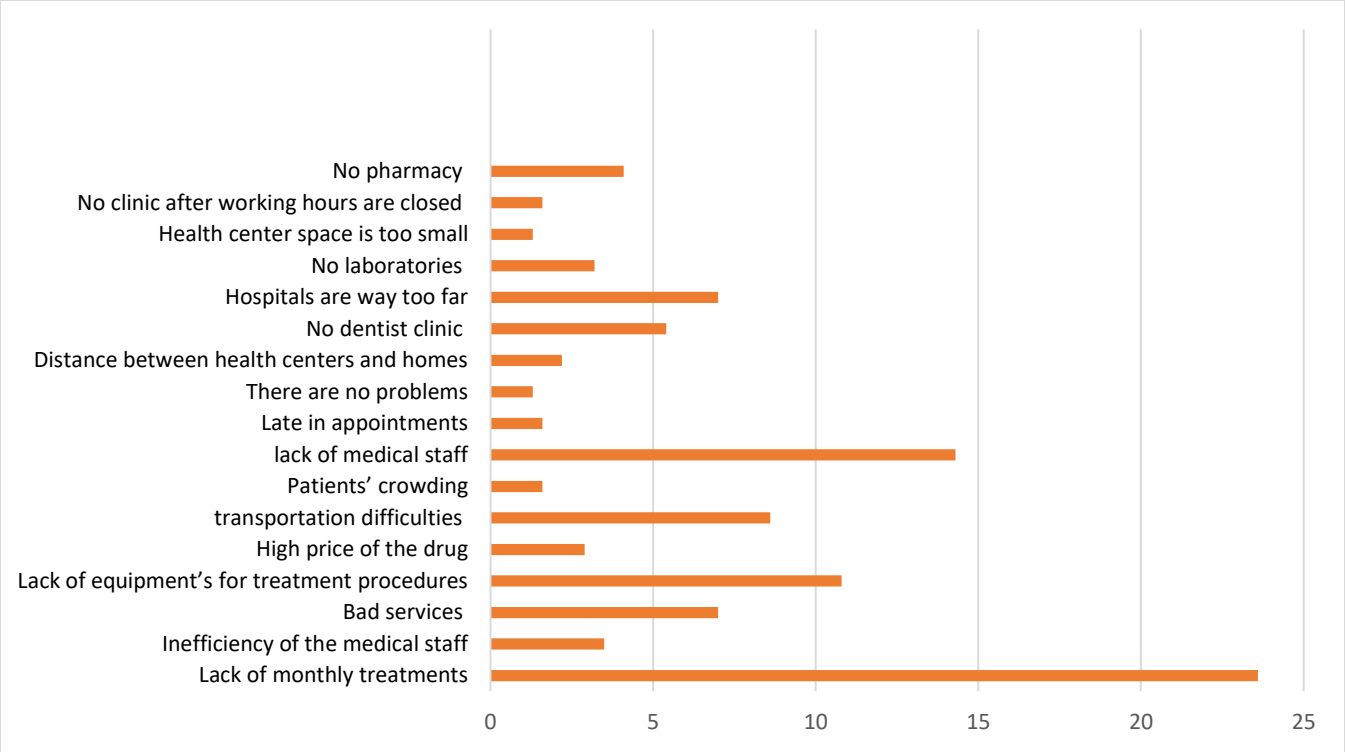

Figure 14: Problems Faced about Health Services in Southern Badia

Educational Services

This section is aimed to provide information about the educational services provided by different institutions for the school level. Where 79.3% of the respondents indicated that their children receive education at public school and the remaining either at the private schools (4.7%) or military schools (0.7%). Few respondents, however, did not provide any information about this service. The average distance of nearest male schools is 3.7 km (±4.2), as only 45.3% of these male schools were comprehensive schools and the rest were schools till the 10th grade only. On the other hand, the nearest female school was about 3.2891 km (±3.2) average distance, and only 44.0% of these schools include all grade levels. The educational services in the southern Badia region were suffering from many problems and obstacles as indicated by the respondents. Some of the main problems were are the lack of appropriate educational services (19.4%), the fact that there is no "scientific stream" (11.2%), and limited nearby schools (10.7%), besides other obstacles as presented in figure 15.

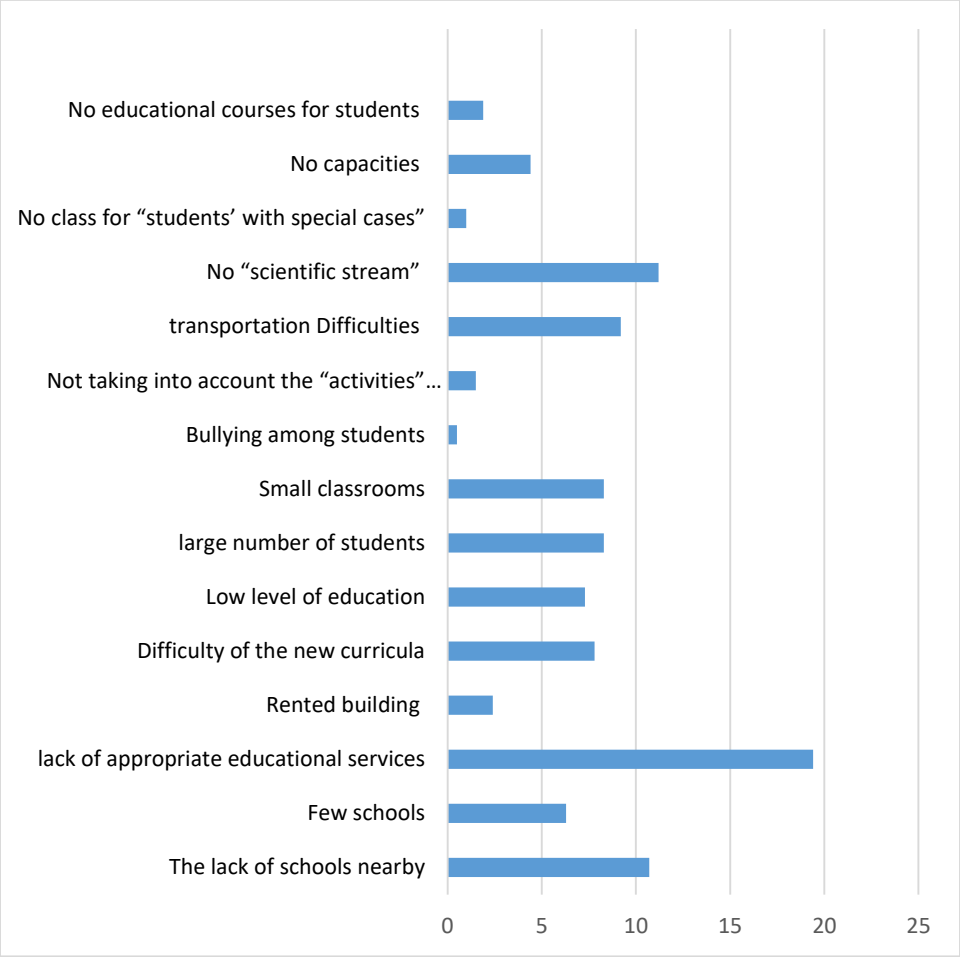

Figure 15: Problems Faced about Educational Services in Southern Badia

Energy Resources and food needs

This section provides information about the main energy sources of the households for different uses; heating, cooking, and lightning. The results showed that 95.3% of the respondents used electricity as the main light source, while only 1.3% used gas lamps. As for heating purposes, 66.0% used gas heaters, while 13.3% used firewood, 4.0% of which were pressed olive residues. Finally, gas stoves were used mostly for cooking purposes by 92.7% of the respondents, while other 3.3% still used firewood for cooking.

On the other side, the majority of the respondents get their daily food needs from the nearest local market (88.0%) that about all the needs of vegetables and groceries, while very few depend on-farm production, especially for animal products. The local community within this study depended mostly on many food products for their daily consumption such as vegetables (22.2% of the respondents), and bread (13.9% of the respondents) that mainly bought also from the local bakeries as 91.3%, while still few depended on homemade bread. Another food product such as rice was consumed by 13.4% of the samples, followed by meat that consisted of about 12.3% of the community (Figure 16).

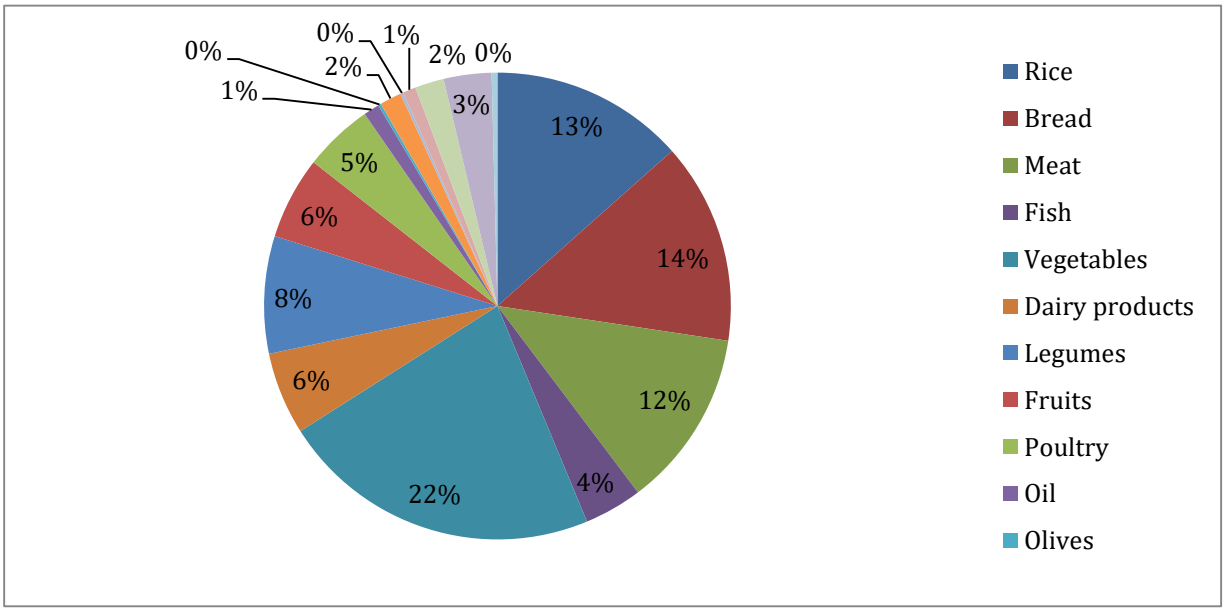

Figure 16: Food products widely used by the respondents from Southern Badia

4.3.5. Detailed Information on Land and Livestock Ownership

This section was designated to collect information in case the either respondents own (1) Agricultural or/and pastoral land and (2) Livestock.

Agricultural or/and Pastoral Land Owned by the Respondents

The respondents from southern Badia had an average of 19.6 dunum (±29.3) owned land; an average of 13.3 dunum (±20.76) of which is used for agricultural purposes and an average of

17.7 dunum (±37.3) is used as a pastoral land for livestock grazing. Respondents cultivated their land mainly for the purpose of using the land as a pasture for livestock they own (16.7%) or for family consumption of agricultural products (12%) or for trading (4.7%).

Lands owned and cultivated by the respondents were mainly planted with barley, wheat and, clover (40.2%, 23.0% and 17.2%, respectively). The crops are mostly planted in rainfed cropping systems (20.7%), while few were irrigated either from wells (6%) or from groundwater (2.7%). Respondents preferred these crops rather than other crops to be used as pasture (50%), followed by for preserving the land (28.6%) and for their direct economic profit (21.4%). However, some areas of owned lands are not entirely cultivated mainly due to the shortage of water, the lack of machines to plow the land and limited financial ability besides other reasons as described in Table 14.

Table 14: Reasons behind not planting the Entire Owned Lands in Southern Badia

Reason	Percentage %
Financial inability	**15.0**
Soil infertility	**5.6**
water shortage	**34.6**
Lack of machines to plow the land	**27.1**
Unavailability of seeds	**5.6**

Livestock Owned by the Respondents

Fifty percent of the respondents own goats with an average of 22.3 heads (±29.7), while 48.9% own sheep with an average of 63.1 heads (±49.5) and only one respondent owns 4 camels (1.1% of the sample). The ownership type of this livestock was 33.3% individual ownership and 1.3% was shared ownership. The breeding style was 18.0% in an open barn and 15.3% in a closed

barn. Grazing and fodder were the main sources of livestock feed in this region.

Livestock in this region mainly depended on grazing as reported by 10% of the respondents. As 19.3% of the respondents tended to do the livestock grazing in communal pasture lands, 18.7% in their own lands, and 4.0% in rented lands. While 22% of the respondents didn't travel a lot with their livestock flock during the grazing season, and 20.7% of the respondents move around with the livestock during the grazing season especially in winter and summer season. Thus, grazing is widely carried among the respondents, especially due to the limited availability of grazing plants besides other reasons described in Figure 17.

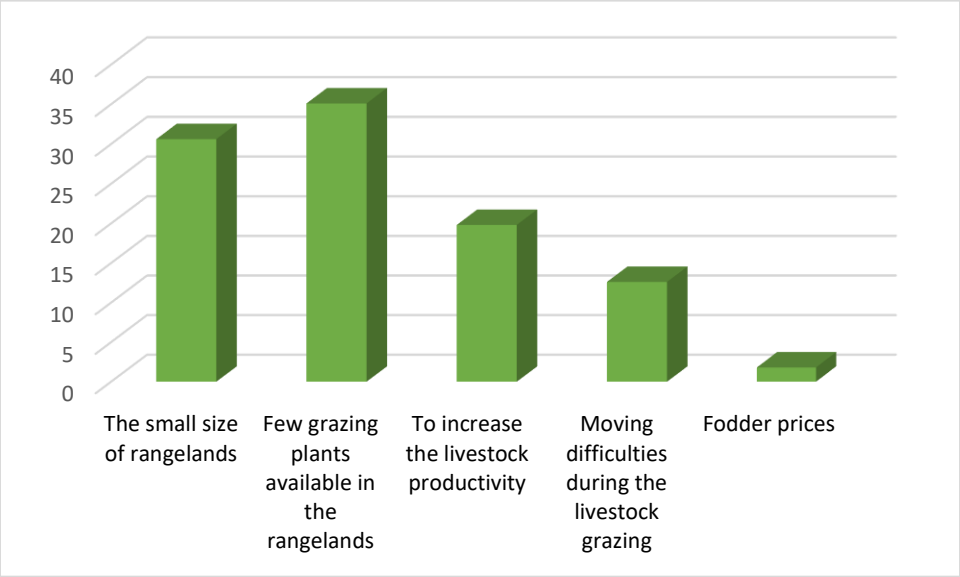

Figure 17: Grazing Preference Reasons in Southern Badia

Respondents also use fodder as a supportive source of feeding their livestock flocks. The livestock depends on barley, hay, bran, corn, wheat and clover for fodder supplements. Fodder types used and their average amount and price at the local market is described in Table 15. Nevertheless, the information provided in this section reflected high variance within responses, therefore, the amounts and prices of fodder types should be handled carefully.

Table 15: Used Fodder Amounts and Prices per Season in Southern Badia

Question	Amount Mean (±SD)	Price Mean (±SD)	Percent %
Type of fodder used			
Barley	(19.1)14.93	(311.9)1.8	**35.7**
Hay	(100.4)80.5	(257.01856)1.3	**19.2**
Bran	(17.4)11.9	(169.5)1.2	**29.1**
Corn	(19.0)19.8	(17.0)22.8	**3.3**
wheat	20.0	20.0	**.5**
Clover	(50.3)38.8	(108.1)83.5	**12.1**

Besides livestock feeding, other financial burdens posed on the livestock owners for the treating animal common diseases. Such common diseases reported by the respondents were mostly poisoning. The livestock owners, therefore, tended to inseminate the livestock either naturally (32.0%) or artificially (6.0%). But if the livestock gets sick, they mostly treated them at veterinarians' private clinics (13.3%) or through the agricultural foundations and institutions (6.0%).

Female members of the local community had a vital role in raising the livestock, where 40.4% of them were involved in processing dairy products, 34.2% involved in milking the sheep and goats, 6.7% took care of the newborns, 6.1% involved in livestock grazing, and 2.6% help in marketing.

Livestock owners with the local community of southern Badia confronted several obstacles within the agriculture and livestock breeding sector. The respondents prioritized the obstacles to be: the water shortage (30.9%), the high prices of fodder (13.2%), lack of agricultural areas and lands for cultivation (12.1%) and the low livestock selling prices (11.3%). Several projects were proposed by respondents from this region, as establishing new wells, and providing mobile veterinary clinics, additional suggestions, and opinions are described in Table 16.

Table 16: Projects Proposed by the Respondents to Overcome Obstacles with the Agriculture and Livestock Sector in Southern Badia

Proposed project	Frequency	Percent %
Donors help and provide animal and agricultural production	**16**	**9.8**
Wells drilling	**39**	**23.8**
Reducing fodder prices	**25**	**15.2**
Livestock care	**8**	**4.9**
Increasing farmers' income by increasing production capacity	**7**	**4.3**
Supporting the efforts of the concerned national programs and agencies, especially scientific research	**6**	**3.7**
establishing reserves	**15**	**9.1**
Providing mobile veterinary clinics	**30**	**18.3**
Provide jobs	**6**	**3.7**

6. Conclusions

This report summarizes collected data about the socio-economic situation in selected areas of Jordan's Badia; northern, middle and southern Badia, which will form baselines for impact evaluations of HERD project "Healthy Ecosystems for Rangeland Development" at the study sites in Jordan. The future evaluation based on this report is expected to illustrate the interrelatedness of issues: i) poverty leads to unsustainable utilization of the rangeland resources and ii) their overutilization leads to increased poverty. Thus, this section will provide the most important features that could act as benchmarks of similarities and differences between the project sites, and act as areas of interventions for achieving the overall objective of HERD project.

Several results from this survey demonstrated high level of harmony among different households at the three study sites, where it turned out the a clear consistency of household properties such as the age of household head and incomes sources, and other services as water, health, educational services. Moreover, the families in these sites were similar in how they manage livestock flocks. The families in the three Badia's reflected approximate average age of the household age that ranged from 45.4 – 48.1 years, and all of the respondents had stated for not having any kind of disabilities or / and chronic diseases. Moreover, most of the respondents were working at the public sector, specifically either retired or still working at the military forces, or working in private sector or they own private businesses. This reflects the working ability of the household head as they were mainly in middle age and many of them had retired in an early age, which reflects an opportunity to involve them in additional work opportunities for enhancing livelihood.

	Northern Badia	**Middle Badia**	**Southern Badia**
Household average age - Years	47.4	48.1	45.4
Household average monthly income. -JD	662.2	317	459.7

Moreover, most of the services of water, health, energy, and food, and education, were provided by governmental entities and offices. All respondents had identified two main obstacles related to water services, specifically: water shortages and high prices. Besides, all the three regions provided health and educational services in the same approximate level and distance. The respondents from the three regions had identified specific problems regarding the health services as a lack of staff, and lack of medications and treatments. The majority of the respondents depended on gas and firewood as the main sources of heating. The respondents reflected common livestock management plans, the livestock depends on fodder and grazing, livestock flocks were not traveling far distance for grazing, and respondents had complained about the cost of fodders and limited grazing plants. In conclusion, the respondents had reflected a common level of governmental services in the three regions, besides common joint livestock management plans.

On the other side, the respondents had demonstrated specific differences between the three regions, which are presented in the following points, as:

1. A low percentage of respondents had gained the graduated/postgraduate level, 18% from northern Badia, 14% from middle Badia, and 8% from the southern Badia.
2. Most of the respondents stated that they were working at the time of collecting the information, as state by 70% from northern Badia, 66% from middle Badia, and 81% from the southern Badia, and the majority of them were married to one wife, and very few cases were married a second wife.
3. Few of the respondents were running domestic food processing workshops for dairy products and jam, as referred by 6% from middle Badia, and 5% from the southern Badia,
4. The monthly water consumption of the households varied between the three regions: 11 m^3 in the northern Badia, 25 m^3 in the middle Badia, and 95m^3 in the southern Badia.
5. The monthly water cost of the households varied between the three regions: 34 JD in the northern Badia, 31 JD in the middle Badia, and 19 JD in the southern Badia. It is most probable that the respondents were reflecting the cost of water supplies for their households besides the cost of water for drinking the livestock.

6. The families in the three regions seek health services from military hospitals and the public, while other respondents from the middle regions seek additional health services from private hospitals.
7. The distance of hospitals varied between communities at the three regions, which was about: 19 Km in the northern Badia, 68 km in the middle Badia, and 22 km in the southern Badia.
8. Even though the educational services are available in the three regions as high and elementary schools, still not all schools provide all grades as requested by some respondents.
9. The respondents stated that the educational services countered specified specific problems in all Badia's a, thus the problems in northern Badia were: Rented building, Lack of appropriate educational services, and low educational level. For the middle Badia, the main problems were: lack of appropriate educational services, and no capacities/ staff. For the southern Badia, the main problems were: lack of appropriate educational services, no scientific stream, and lack of nearby schools.
10. The land owned by the respondents varied in the size, whereas land size was for: northern Badia (12.3) du, middle Badia (6.4) du, and southern Badia (19.6) du.
11. The average grazing utilized land was for each of the three regions as northern Badia (47.7) du, middle Badia (8.7) du, and southern Badia (17.7) du, according to the respondents' responses.
12. The respondents had identified different planted crops in each region as the dominant crops: northern Badia (Barley, Wheat, Olive), middle Badia (Olive, vegetables, clover, Pomegranate), and southern Badia (Barley, wheat, clover).
13. The respondents had specified specific problems countered when planting the land as in northern Badia the main problems were: Water shortage, soil infertility, and financial inability. For the middle Badia, the main problems were: financial inability, water shortage, and oil infertility. For the southern Badia, the main problems were: water shortage, lack of plowing equipments, and financial inability.
14. The households in the three regions owned both goats and sheep, with a high variations in the flock size in the same region and the other regions, as in the Northern Badia the flock

size of goats = 17, and of sheep = 3), the middle Badia the flock size of goats = 1, and of sheep = 51), and the southern Badia the flock size of goats = 22, and of sheep = 63),

15. The respondents from northern and southern Badia follow the closed breeding system, while only those in southern Badia followed the open rearing system for livestock production.
16. The livestock practiced grazing in private land, rented land, and communal land as stated by respondents from northern and southern Badia and practice grazing in spring seasons. While those in middle Badia used communal and own land for livestock grazing.
17. Women took different roles in livestock management, while in northern Badia the main roles were: milking, dairy products production, grazing, baby care, marketing. For the middle Badia, the main roles were: milking, dairy products production, baby care, grazing, and fattening. For the southern Badia, the main roles were: dairy products production, milking, baby care, grazing, and marketing
18. The problems related to agriculture were different: in northern Badia, the main problems were: water shortage, livestock prices, the lack of agricultural lands for cultivation, and the high fodder prices. For the middle Badia, the main problems were: water shortage, the lack of agricultural land for cultivation, overgrazing, and lack of pastures. For those from southern Badia, the main problems were: water shortage, high fodder prices, the lack of agricultural lands for cultivation and low selling prices of livestock.
19. The respondents from the three Badia's proposed development projects for each region, which were as the following: northern Badia: support fodder prices and wells drilling, for those from the middle Badia the proposed projects were: wells drilling, and establishing reserves, and for the southern Badia the proposed projects were: wells drilling, and provide mobile veterinary clinics.

Annex A

A-1 Results of the Statistical Analysis

Information Related to the Respondent

#	Q	N	Min	Max	Mean	Frequency	Percent %
	Respondent as	**149**					
	Husband					**97**	**64.7**
	Wife					**37**	**24.7**
	Son					**9**	**6.0**
	Daughter					**6**	**4.0**
	Age	**139**	**20.00**	**75.00**	**45.4029**		
	Educational	**136**					
	Primary					**17**	**11.3**
	Middle					**27**	**18.0**
	Secondary					**56**	**37.3**
	BA/ Diploma					**35**	**23.3**
	Graduate					**1**	**.7**

1. **Family Residence:**

#	Q	N	Min	Max	Mean	Frequency	Percent

	Residency	**149**					
	Al-Mansoora					**95**	**63.3**
	Al-Hamra					**16**	**10.7**
	Al-Sarhan					**29**	**19.3**
	Al-Khanasri					**8**	**5.3**
	Al-Sweilmeh					**1**	**.70**
	Family	**146**					
	Permanent					**139**	**92.7**
	Non-permanent					**7**	**4.7**
	Residence type	**144**					
	Stone house					**42**	**28.0**
	Brick house					**102**	**68.0**
	Do you own	**146**					
	No					**141**	**94.0**
	Yes					**5**	**3.3**
	Do you share	**146**					
	No					**138**	**92.0**
	Yes					**8**	**5.3**
	With whom do	**8**					

	My married					**6**	**4.0**
	My married					**1**	**.7**
	My parents					**1**	**.7**
	Number of	**144**					
	One room					**1**	**.7**
	Two rooms					**9**	**6.0**
	Three rooms					**57**	**38.0**
	Four rooms					**55**	**36.7**
	Five rooms					**22**	**14.7**

2. Information Related to The Family:

2.1. Information Related to Head of The Family:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Age	**117**	**24.00**	**75.00**	**47.7 (12.05)**		
	Educational level	**138**					
	Primary					**24**	**16.0**
	Middle					**25**	**16.7**

	Secondary					**62**	**41.3**
	BA/ Diploma					**22**	**14.7**
	Graduate level					**5**	**3.3**
	Health status	**147**					
	Healthy					**122**	**81.3**
	Sick					**24**	**16.0**
	Disabled					**1**	**.7**
	Specify the type of sickness	**23**					
	Blood pressure					**11**	**7.3**
	Diabetes					**6**	**4.0**
	Heart disease					**4**	**2.7**
	Asthma					**1**	**.7**
	Specify the type of						

	disability						
	Paralysis					**1**	**.7**
	Does the head of the family work	**146**					
	Work					**106**	**70.7**
	Doesn’t work					**40**	**26.7**
	Specify type of work	**112**					
	Heir’s salary					**1**	**.7**
	Retirement salary					**37**	**24.7**
	Military salary					**35**	**23.3**
	School guard					**2**	**1.3**
	Bank employee					**1**	**.7**
	ASEZA					**3**	**2.0**

	Manager of the health center					**1**	**.7**
	Lecturer					**4**	**2.7**
	Teacher					**6**	**4.0**
	Municipality employee					**3**	**2.0**
	Free business					**16**	**10.7**
	Engineer					**2**	**1.3**
	Restaurant employee					**1**	**.7**
	Monthly income amount	**138**	**50.0**	**2000.0**	**6.1 (470.5)**		

2.2.Information Related to the Wife(s):

#	**Q**	**N**	**Min**	**Max**	**Mean (±SD)**	**Frequency**	**Percent %**
	Age (First wife)	**139**	**20.00**	**75.00**	**45.4 (12.3)**		

	Educational level (First wife)	**130**					
	Illiterate					**20**	**13.3**
	Primary					**8**	**5.3**
	Middle					**23**	**15.3**
	Secondary					**32**	**21.3**
	BA/ Diploma					**45**	**30.0**
	Graduate studies					**2**	**1.3**
	Health status (First wife)	**129**					
	Healthy					**115**	**76.7**
	Sick					**14**	**9.3**
	Specify the type of sickness (First wife)	**14**					
	Thyroid					**1**	**.7**

	Diabetes					**10**	**6.7**
	Blood pressure					**3**	**2.0**
	Does the first wife work	**130**					
	Work					**34**	**22.7**
	Doesn’t work					**96**	**64.0**
	Specify first wife type of work	**34**					
	Teacher					**17**	**11.3**
	Municipality employee					**6**	**4.0**
	Military					**7**	**4.7**
	Nurse					**1**	**.7**
	UNRWA					**1**	**.7**
	Ministry of Agriculture					**2**	**1.3**

	Age (second wife)	**5**	**33.00**	**55.00**	**41.20 (10.4)**		
	Educational level (second wife)	**9**					
	Illiterate					**1**	**.7**
	Primary					**1**	**.7**
	Middle					**1**	**.7**
	Secondary					**3**	**2.0**
	BA/ Diploma					**3**	**2.0**
	Health status (second wife)						
	Healthy					**9**	**6.0**
	Specify the type of sickness (second wife)						
	Does the second wife work	**8**					

	Work					**2**	**1.3**
	Doesn't work					**6**	**4.0**
	Specify first wife type of work						
	Teacher					**2**	**1.3**

2.3.Information related to children:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Age (child 1)	**98**	**1.00**	**50.00**	**15.8(11.42)**		
	Educational level (child 1)	**112**					
	Illiterate					**1**	**.7**
	Primary					**33**	**22.0**
	Middle					**8**	**5.3**
	Secondary					**43**	**28.7**
	BA/ Diploma					**27**	**18.0**

	Health status (child 1)						
	Healthy					**133**	**88.7**
	Specify the type of sickness (child 1)						
	Specify the type of disability (child 1)						
	Impaired mobility					**1**	**.7**
	Does the first child work	**135**					
	Work					**24**	**16.0**
	Doesn’t work					**111**	**74.0**
	Specify first child type of work	**22**					
	Military					**15**	**10.0**
	Free business					**2**	**1.3**
	Health center					**1**	**.7**

	Teacher					**4**	**2.7**
	Age (child 2)	**80**	**2.00**	**44.00**	**15.8 (10.3)**		
	Educational level (child 2)	**97**					
	Illiterate					**1**	**.7**
	Primary					**34**	**22.7**
	Middle					**7**	**4.7**
	Secondary					**33**	**22.0**
	BA/ Diploma					**22**	**14.7**
	Health status (child 2)						
	Healthy					**112**	**74.7**
	Specify the type of sickness (child 2)						
	Specify the type of disability (child 2)						

	Does the second child work	**112**					
	Work					**15**	**10.0**
	Doesn’t work					**97**	**64.7**
	Specify second child type of work	**14**					
	Municipality employee					**4**	**2.7**
	Free business					**1**	**.7**
	Military					**9**	**6.0**
	Age (child 3)	**60**	**1.00**	**34.00**	**14.75 (9.8)**		
	Educational level (child 3)	**70**					
	Illiterate					**1**	**.7**
	Primary					**18**	**12.0**
	Middle					**11**	**7.3**
	Secondary					**20**	**13.3**

	BA/ Diploma					**20**	**13.3**
	Health status (child 3)	**87**					
	Healthy					**86**	**57.3**
	Disabled					**1**	**.7**
	Specify the type of sickness (child 3)						
	Specify the type of disability (child 3)						
	Dumb					**1**	**.7**
	Does the third child work	**84**					
	Work					**14**	**9.3**
	Doesn’t work					**70**	**46.7**
	Specify third child type of work	**13**					
	Engineer					**2**	**1.3**

	Free business					**2**	**1.3**
	Military					**7**	**4.7**
	Tailoring factory					**2**	**1.3**
	Age (child 4)	**47**	**1.00**	**45.00**	**13.2 (10.4)**		
	Educational level (child 4)	**58**					
	Illiterate					**1**	**.7**
	Primary					**18**	**12.0**
	Middle					**11**	**7.3**
	Secondary					**13**	**8.7**
	BA/ Diploma					**15**	**10.0**
	Health status (child 4)						
	Healthy					**73**	**48.7**
	Specify the type of sickness (child 4)						

	Specify the type of disability (child 4)						
	Does the fourth child work	**73**					
	Work					**12**	**8.0**
	Doesn’t work					**61**	**40.7**
	Specify fourth child type of work	**12**					
	Military					**8**	**5.3**
	Nurse					**2**	**1.3**
	Tailoring factory					**2**	**1.3**
	Age (child 5)	**30**	**2.00**	**49.00**	**14.0 (10.6)**		
	Educational level (child 5)	**36**					
	Illiterate					**1**	**.7**
	Primary					**13**	**8.7**

	Middle					**8**	**5.3**
	Secondary					**8**	**5.3**
	BA/ Diploma					**6**	**4.0**
	Health status (child 5)						
	Healthy					**47**	**31.3**
	Specify the type of sickness (child 5)						
	Specify the type of disability (child 5)						
	Does the fifth child work	**47**					
	Work					**5**	**3.3**
	Doesn't work					**42**	**28.0**
	Specify fifth child type of work						
	Military					**5**	**3.3**

	Age (child 6)	**16**	**1.00**	**47.00**	**17.8750 (12.79518)**		
	Educational level (child 6)	**23**					
	Illiterate					**1**	**.7**
	Primary					**8**	**5.3**
	Middle					**2**	**1.3**
	Secondary					**6**	**4.0**
	BA/ Diploma					**6**	**4.0**
	Health status (child 6)						
	Healthy					**27**	**18.0**
	Specify the type of sickness (child 6)						
	Specify the type of disability (child 6)						
	Does the sixth child work	**27**					

	Work					**4**	**2.7**
	Doesn’t work					**23**	**15.3**
	Specify sixth child type of work						
	Military					**4**	**2.7**
	Age (child 7)	**12**	**3.00**	**39.00**	**18.5833 (10.07660)**		
	Educational level (child 7)	**22**					
	Primary					**8**	**5.3**
	Middle					**8**	**5.3**
	Secondary					**4**	**2.7**
	BA/ Diploma					**2**	**1.3**
	Health status (child 7)						
	Healthy					**23**	**15.3**

	Specify the type of sickness (child 7)						
	Specify the type of disability (child 7)						
	Does the seventh child work	**23**					
	Work					**3**	**2.0**
	Doesn’t work					**20**	**13.3**
	Specify seventh child type of work						
	Military					**3**	**2.0**
	Age (child 8)	**10**	**8.00**	**49.00**	**20.20(12.0)**		
	Educational level (child 8)	**14**					
	Illiterate					**1**	**.7**
	Primary					**6**	**4.0**

	Middle					**2**	**1.3**
	Secondary					**4**	**2.7**
	BA/ Diploma					**1**	**.7**
	Health status (child 8)						
	Healthy					**14**	**9.3**
	Specify the type of sickness (child 8)						
	Specify the type of disability (child 8)						
	Does the eighth child work	**14**					
	Work					**3**	**2.0**
	Doesn't work					**11**	**7.3**
	Specify eighth child type of work						
	Military					**3**	**2.0**

	Age (child 9)	**3**	**10.00**	**11.00**	**10.3 (0.57)**		
	Educational level (child 9)	**4**					
	Primary					**3**	**2.0**
	BA/ Diploma					**1**	**.7**
	Health status (child 9)						
	Healthy					**7**	**4.7**
	Specify the type of sickness (child 9)						
	Specify the type of disability (child 9)						
	Does the ninth child work						
	Doesn't work					**7**	**4.7**
	Specify ninth child type of work						

3. Income:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What are the income resources for your family	**148**					
	Public sector job	**99**					**66.9**
	Private sector job	**17**					**11.5**
	Free business job	**16**					**10.8**
	Agricultural practices/ specify what type of agricultural practices						
	Breeding	**16**					**10.8**
	Specify the public sector job	**102**					
	Military					**53**	**35.3**

	School guard					**3**	**2.0**
	ASEZA					**3**	**2.0**
	Manager of the health center					**1**	**.7**
	Retired					**22**	**14.7**
	Lecturer					**4**	**2.7**
	Teacher					**10**	**6.7**
	Municipality employee					**3**	**2.0**
	Engineer					**1**	**.7**
	Ministry of Agriculture					**2**	**1.3**
	Specify the private sector job	**16**					
	Bank employee					**1**	**.7**

	Private school teacher					**5**	**3.3**
	Company					**4**	**2.7**
	Farmer					**4**	**2.7**
	Restaurant					**1**	**.7**
	Taxi driver					**1**	**.7**
	Specify the free business job	**2**					
	Car trading					**1**	**.7**
	Satellite sale and maintenance					**1**	**.7**
	What kind of livestock are you raising						
	Sheep					**15**	**10.0**
	Family monthly income	**50**	**2500**	**662.3**	**503.6**		

	Are there any home industries that you produce	**108**					
	No					**106**	**70.7**
	Yes					**2**	**1.3**

4. Services:

#	**Q**	**N**	**Min**	**Max**	**Mean (±SD)**	**Frequency**	**Percent %**
	What available water resources do you have	**195**					
	Water network	**141**					**72.3**
	Water tanks	**54**					**27.7**
	For what purposes do you use water on the household level						

	how much water do you consume in a single month	**143**	**1.00**	**100.00**	**10.7 (14.6)**		
	Water bill amount	**144**	**6.00**	**200.00**	**34.7 (34.40)**		
	Problems faced about water services	**371**					
	Shortage in general	**111**					**29.9**
	Water quality	**67**					**18.0**
	Difficult to deliver	**90**					**24.3**
	High price	**103**					**27.8**

4.1 health Services:

#	**Q**	**N**	**Min**	**Max**	**Mean (±SD)**	**Frequency**	**Percent %**
	Does your family have a health	**146**					

	insurance						
	Yes					**142**	**94.7**
	No					**4**	**2.7**
	Specify the health insurance type	**138**					
	Heir’s retirement					**8**	**5.3**
	Retirement					**2**	**1.3**
	Military					**91**	**60.7**
	Public					**35**	**23.3**
	Private					**1**	**.7**
	Social development					**1**	**.7**
	How do you get these health services	**145**					

	Public hospitals' clinics					**138**	**92.0**
	Private hospitals' clinics					**7**	**4.7**
	What does your family depend on to treat regular common diseases						
	How far is the nearest health center from which you receive health services (km)	**148**	**1.00**	**20.00**	**4.2 (3.5)**		
	How far is the nearest hospital from which you receive health services (km)	**148**	**1.00**	**80.00**	**19.1 (9.02)**		
	Problems faced about health services	**251**					
	Lack of monthly treatments					**89**	**35.5**

	Inefficiency of the medical staff					**15**	**6.0**
	Bad services					**8**	**3.2**
	Lack of equipment's for treatment procedures					**20**	**8.0**
	High price of the drug					**20**	**8.0**
	transportation difficulties					**15**	**6.0**
	Patients' crowding					**11**	**4.4**
	Lack of suitable patient rooms					**1**	**.4**
	lack of medical staff					**33**	**13.2**
	Late in appointments					**16**	**6.4**
	There are no problems					**17**	**6.8**

	Distance between health centers and homes					**6**	**2.4**

4.2 educational services:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Where does your children receive education	**104**					
	State schools					**89**	**59.3**
	Private schools					**15**	**10.0**
	How far is the nearest male school (km)	**86**	**.05**	**20.00**	**4.27 (4.93)**		
	Specify the educational levels for male schools	**73**					
	All levels					**53**	**35.3**
	Until 10th grade					**3**	**2.0**

	Until 6th grade					**9**	**6.0**
	Until 3rd grade					**8**	**5.3**
	How far is the nearest female school (km)	**86**	**.10**	**10.00**	**3.1 (2.42)**		
	Specify the educational levels for female schools	**70**					
	All levels					**53**	**35.3**
	Until 7th grade					**1**	**.7**
	Until 2nd grade					**5**	**3.3**
	Until 4th grade					**9**	**6.0**
	Until 11th grade					**2**	**1.3**
	Problems faced about educational services	**152**					
	The lack of schools nearby					**9**	**5.9**

	Few schools					**14**	**9.2**
	lack of appropriate educational services					**23**	**15.1**
	Having a public dangerous street risking the students ’lives					**2**	**1.3**
	Rented building					**28**	**18.4**
	Discrimination between students					**3**	**2.0**
	Difficulty of the new curricula					**10**	**6.6**
	Low level of education					**21**	**13.8**
	large number of students					**15**	**9.9**
	Small classrooms					**10**	**6.6**
	Bullying among students					**4**	**2.6**

	Not taking into account the individual differences of students					**1**	**.7**
	Not taking into account the “activities” class for students					**1**	**.7**
	transportation Difficulties					**7**	**4.6**
	no schools for people with special needs					**2**	**1.3**
	Charging fees for learning resources					**2**	**1.3**

4.3 energy resources:

#	**Q**	**N**	**Min**	**Max**	**Mean (±SD)**	**Frequency**	**Percent %**
	What is your main lighting source						

	Electricity network					**147**	**98.0**
	What was the main source of heating you had during the last winter	**140**					
	Gas heater					**101**	**67.3**
	Electric heater					**9**	**6.0**
	Diesel gas heater					**8**	**5.3**
	firewood					**22**	**14.7**
	What is the source of firewood	**14**					
	pressed olive residues					**10**	**6.7**
	Local market					**4**	**2.7**

	What do you use for cooking in your own home						
	Gas stove					**134**	**89.3**

4.4 food needs:

#	**Q**	**N**	**Min**	**Max**	**Mean (±SD)**	**Frequency**	**Percent %**
	Determine where does your family gets most of the nutritional needs						
	Local market					**148**	**98.7**
	How does your family get your daily bread	**137**					
	Local bakery					**136**	**90.7**
	Griddle (Saj)					**1**	**.7**

	What do you use for the bread / tabun or Griddle (Saj)	**59**					
	Gas					**58**	**38.7**
	Firewood					**1**	**.7**
	What is the source of firewood						
	What is the nature of your usual daily food	**526**					
	Rice	**71**					**13.5**
	Bread	**98**					**18.6**
	Meat	**87**					**16.5**
	Fish	**8**					**1.5**
	Vegetables	**108**					**20.5**
	Dairy products	**35**					**6.7**

	Legumes	**57**					**10.8**
	Fruits	**31**					**5.9**
	Poultry	**25**					**4.8**
	Oil	**3**					**.6**
	Olives	**3**					**.6**

5. Land and livestock ownership:

First: If your family owns agricultural and pastoral lands, answer the following:

#	**Q**	**N**	**Min**	**Max**	**Mean (±SD)**	**Frequency**	**Percent %**
	How much is the area for the land you own	**42**	**.50**	**100.00**	**12.3690 (20.98259)**		
	How much is the area for the land you own and use for agriculture	**7**	**5.00**	**20.00**	**10.2857 (4.71573)**		
	Determine what crops	**16**					

	you grow						
	Barley	**12**					**75.0**
	Wheat	**2**					**12.5**
	olive	**2**					**12.5**
	Source of water used in agriculture	**14**					
	Rainwater					**13**	**8.7**
	Groundwater					**1**	**.7**
	How much is the area for the land you own and use for grazing	**7**	**2.00**	**100.00**	**47.7143 (49.28054)**		
	What are the standards for lands used for grazing or cultivation	**6**					
	number of family members					**4**	**2.7**

	Water availability					**2**	**1.3**
	What is the purpose of agriculture	**14**					
	Trading					**2**	**1.3**
	Providing pasture for livestock					**12**	**8.0**
	In case that the entire area is not cultivated, what are the reasons	**49**					
	Financial inability	**9**					**18.4**
	Soil infertility	**15**					**30.6**
	water shortage	**19**					**38.8**
	Overgrazing	**6**					**12.2**
	First important crop	**35**					

	Barley					**12**	**8.0**
	Wheat					**14**	**9.3**
	Forestry trees					**7**	**4.7**
	Vegetables					**2**	**1.3**
	Second important crop	**19**					
	Wheat					**7**	**4.7**
	Forestry trees					**10**	**6.7**
	Fruits					**2**	**1.3**
	third important crop						
	Forestry trees					**2**	**1.3**
	Determine the reasons for your preference for these crops	**25**					

	Material profit	**8**					**32.0**
	Livestock consumption	**12**					**48.0**
	Preserving the land	**5**					**20.0**

Second: If your family owns livestock, answer the following:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What kind of livestock do you	**29**					
	goat					**14**	**9.3**
	Lamb					**15**	**10.0**
	How many camels do you own	**0**					
	How many goats do you own	**10**	**2.00**	**100.00**	**16.6000 (29.62806)**		
	How many lambs do you own	**12**	**40.00**	**700.00**	**2.4833 (222.09062)**		
	What is the nature of your family's	**26**					

	Individual					**24**	**16.0**
	Shared					**2**	**1.3**
	What is your family's livestock	**25**					
	Closed barn					**14**	**9.3**
	Open barn					**11**	**7.3**
	What is the main source for	**29**					
	fodder					**9**	**6.0**
	Grazing and fodder					**20**	**13.3**
	Determine what are the most	**17**					
	spring					**16**	**10.7**
	winter					**1**	**.7**
	If you use grazing, what is the main	**57**					
	The small size of rangelands	**15**					**26.3**

	Few grazing plants available in the	**19**					**33.3**
	To increase the livestock	**6**					**10.5**
	Moving difficulties during the livestock	**13**					**22.8**
	Fodder prices	**4**					**7.0**
	Where do you graze	**27**					
	own land only					**12**	**8.0**
	Lands of communal pastures					**7**	**4.7**
	Rented lands					**8**	**5.3**
	Do you move with livestock during	**29**					
	No					**13**	**8.7**
	Yes					**16**	**10.7**
	If (yes), what are the areas that you						
	Same area					**1**	**.7**

	If (yes), what are the areas that you move in through the winter season	**5**					
	Al- Azraq					**4**	**2.7**
	Sama Al-Sarhan					**1**	**.7**
	How do you move with livestock						
	With whom do you move with livestock	**14**					
	family members					**9**	**6.0**
	Nobody, I hire a herdsman					**5**	**3.3**
	What kind of fodder do you use	**62**					
	Barley	**28**					**45.2**
	hay	**14**					**22.6**
	bran	**13**					**21.0**

	corn	**4**					**6.5**
	Crusty bread	**2**					**3.2**
	Wheat	**1**					**1.6**
	Barley/amount	**28**	**2.00**	**3000.00**	**3.4429 (937.16171)**		
	Barley/price	**27**	**9.00**	**5250.00**	**1.0319(1964.6)**		
	Hay/amount	**14**	**2.00**	**5000.00**	**1.225 (2111.3)**		
	Hay/price	**13**	**1.50**	**5000.00**	**1.46 (2140.6)**		
	Bran/amount	**13**	**1.00**	**2500.00**	**5.9 (1087.7)**		
	Bran/price	**12**	**1.50**	**4000.00**	**1.15 (1791.64)**		
	Corn/amount	**4**	**10.00**	**50.00**	**30.00 (18.2542)**		
	Corn/price	**3**	**20.00**	**20.00**	**20.0000 (.00000)**		
	Wheat/amount	**1**	**20.00**	**20.00**	**20.0000**		
	Wheat/price	**1**	**20.00**	**20.00**	**20.0000**		

	In what way do you vaccinate your	**33**					
	natural	**27**					**81.8**
	Artificial	**6**					**18.2**
	How do you treat your livestock in	**28**					
	Veterinarians					**25**	**16.7**
	Agricultural societies and					**3**	**2.0**
	What are the diseases spread	**46**					
	Intestinal poisoning	**21**					**45.7**
	قلاعية	**6**					**13.0**
	اوفهك	**6**					**13.0**
	smallpox	**3**					**6.5**
	Goats تكرسح	**1**					**2.2**
	Labor difficulties	**8**					**17.4**

	Fleas	**1**					**2.2**
	Reasons for low productivity of	**53**					
	pastures productivity					**15**	**28.3**
	The high cost of fodder					**27**	**50.9**
	Low prices of livestock					**11**	**20.8**
	women participation in	**77**					
	Grazing	**15**					**19.5**
	Milking	**26**					**33.8**
	newborns care	**12**					**15.6**
	Dairy manufacture and derivatives	**20**					**26.0**
	Marketing	**4**					**5.2**
	Obstacles faced within plant and	**255**					
	water shortage	**69**					**27.1**

	The lack of artesian wells close to the	**8**					**3.1**
	The lack of agricultural areas	**43**					**16.9**
	The lack of financial	**8**					**3.1**
	High prices of livestock	**44**					**17.3**
	The high cost of fodder	**38**					**14.9**
	Overgrazing	**13**					**5.1**
	Expensive land	**3**					**1.2**
	Bad soil	**4**					**1.6**
	The lack of places for raising animals	**8**					**3.1**
	Lack of rainfall in winter season	**4**					**1.6**
	Unavailability of seeds	**4**					**1.6**
	Unavailability of markets	**2**					**.8**
	The lack of medicines	**2**					**.8**

	Dry springs	**1**					**.4**
	The spread of agricultural pests	**1**					**.4**
	The lack of a veterinary hospital	**3**					**1.2**
	Proposed projects	**132**					
	Donors help and provide animal and	**7**					**5.3**
	Wells drilling	**30**					**22.7**
	Reducing livestock prices	**21**					**15.9**
	Reducing fodder prices	**24**					**18.2**
	Livestock care	**4**					**3.0**
	Opening projects for women to	**1**					**.8**
	Barley production and improving the	**4**					**3.0**
	Increasing farmers' income by	**7**					**5.3**
	Supporting the efforts of the	**4**					**3.0**

	establishing reserves	**5**					**3.8**
	Providing mobile veterinary clinics	**11**					**8.3**
	Reducing the prices of medicines	**1**					**.8**
	Launch wool importing	**1**					**.8**
	Opening factories for dairy marketing	**4**					**3.0**
	Pest Control	**1**					**.8**
	Crop cultivation according to	**4**					**3.0**
	Provide jobs	**3**					**2.3**

Annex A

A-2 Results of the Statistical Analysis

Information Related to the Respondent

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Respondent as	136					
	Husband					58.7	81
	Wife					29.0	40
	Son					4.3	6
	Daughter					6.5	9
	Age	106	18.00	80.00	45.1981 (14.44096)		
	Educational Level	127					
	Primary					15.2	21
	Middle					13.8	19
	Secondary					36.2	50
	BA/ Diploma					23.9	33
	Graduate studies					2.9	4

Family Residence:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Residency location/ Village	135					
	Al-Azraq					132	95.7
	Al-Omari					2	1.4
	Farms/Al-Dagheleh					1	.7
	Family residency type	131					
	Permanent					106	76.8
	Non-permanent					25	18.1
	Reason	9					
	Rented house					7	5.1
	Syrian refugee					2	1.4
	Residence type	135					
	Stone house					14	10.1
	Brick house					106	76.8
	Tent					15	10.9
	Do you own other	133					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	houses						
	No					130	94.2
	Yes					3	2.2
	Do you share your home with another family	133					
	No					111	80.4
	Yes					22	15.9
	With whom do you share residency	13					
	My married children					6	4.3
	My married siblings					2	1.4
	My parents					5	3.6
	Number of rooms	114					
	One room					1	.7
	Two rooms					21	15.2
	Three rooms					49	35.5
	Four rooms					34	24.6
	Five rooms					9	6.5

Information Related to The Family:

Information Related to Head of The Family:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Age	128	24.00	81.00	48.0625 (12.92726)		
	Educational level	134					
	Primary					25	18.1
	Middle					34	24.6
	Secondary					55	39.9
	BA/ Diploma					18	13.0
	Graduate studies					2	1.4
	Health status	132					
	Healthy					110	79.7
	Sick					22	15.9
	Specify the type	21					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	of sickness						
	Blood pressure					4	2.9
	Diabetes					2	1.4
	Heart disease					4	2.9
	Asthma					1	.7
	Desk					6	4.3
	Kidneys					1	.7
	Aging					3	2.2
	Specify the type of disability						
	Does the head of the family work	127					
	Work					91	65.9
	Doesn't work					36	26.1
	Specify type of work	74					
	Retirement salary					21	15.2
	Military salary					12	8.7
	School guard					2	1.4
	Teacher					3	2.2
	Municipality employee					2	1.4
	Free business					13	9.4
	Water Authority					1	.7
	Clean worker					2	1.4
	Driver					4	2.9
	Daily labor					11	8.0
	Lawyer					2	1.4
	Azraq Refugee Camp					1	.7
	Monthly income amount	108	60.00	540.00	2.9726 (93.19123)		

Information Related to the Wife(s):

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Age (First wife)	31	23.00	60.00	36.1613 (10.83850)		
	Educational level (First wife)	113					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Illiterate					11	8.0
	Primary					12	8.7
	Middle					19	13.8
	Secondary					46	33.3
	BA/ Diploma					21	15.2
	Graduate studies					4	2.9
	Health status (First wife)	113					
	Healthy					107	77.5
	Sick					6	4.3
	Specify the type of sickness (First wife)	5					
	Blood pressure					1	.7
	Rheumatism					3	2.2
	Heart disease					1	.7
	Specify the type of disability (First wife)						
	Hand disability					1	.7
	Does the first wife work	111					
	Work					12	8.7
	Doesn't work					99	71.7
	Specify first wife type of work	11					
	Teacher					5	3.6
	Municipality employee					3	2.2
	Ministry of Agriculture					2	1.4
	Health center					1	.7
	Age (second wife)						
	Educational level (second wife)	5					
	Illiterate					1	.7
	Primary					1	.7
	Middle					3	2.2
	Health status (second wife)						
	Healthy					5	3.6

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Specify the type of sickness (second wife)						
	Specify the type of disability (second wife)						
	Does the second wife work						
	Work					0	0
	Doesn't work					5	3.6
	Specify second wife type of work						
	Age (third wife)						
	Educational level (third wife)						
	Middle					3	2.2
	Health status (third wife)						
	Healthy					3	2.2
	Specify the type of sickness (third wife)						
	Specify the type of disability (third wife)						
	Does the third wife work						
	Work					0	0
	Doesn't work					3	2.2
	Specify third wife type of work						

Information related to children:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Age (child 1)	65	1.00	37.00	16.2538 (10.36601)		
	Educational level (child 1)	94					
	Primary					29	21.0
	Middle					13	9.4

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Secondary					31	22.5
	BA/ Diploma					21	15.2
	Health status (child 1)	110					
	Healthy					106	76.8
	Sick					4	2.9
	Specify the type of sickness (child 1)						
	Foot amputation					1	.7
	Specify the type of disability (child 1)	3					
	Impaired mobility					1	.7
	Mental retardation					2	1.4
	Does the first child work	109					
	Work					22	15.9
	Doesn't work					87	63.0
	Specify first child type of work	19					
	Military					2	1.4
	Free business					5	3.6
	Teacher					6	4.3
	Shawmari Reserve					1	.7
	Driver					2	1.4
	Herdsman					3	2.2
	Age (child 2)	50	1.00	34.00	14.9900 (8.87469)		
	Educational level (child 2)	89					
	Illiterate					1	.7
	Primary					29	21.0
	Middle					11	8.0
	Secondary					35	25.4
	BA/ Diploma					13	9.4
	Health status (child 2)	98					
	Healthy					97	70.3

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Sick					1	.7
	Specify the type of sickness (child 2)						
	Specify the type of disability (child 2)						
	Impaired mobility					1	.7
	Does the second child work	97					
	Work					12	8.7
	Doesn't work					85	61.6
	Specify second child type of work	12					
	Municipality employee					1	.7
	Free business					2	1.4
	Military					4	2.9
	Driver					2	1.4
	Herdsman					3	2.2
	Age (child 3)	38	1.00	34.00	11.8026 (8.34682)		
	Educational level (child 3)	64					
	Illiterate					1	.7
	Primary					23	16.7
	Middle					12	8.7
	Secondary					21	15.2
	BA/ Diploma					7	5.1
	Health status (child 3)						
	Healthy					77	55.8
	Specify the type of sickness (child 3)						
	Specify the type of disability (child 3)						
	Does the third child work	76					
	Work					4	2.9

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Doesn't work					72	52.2
	Specify third child type of work	4					
	Free business					2	1.4
	Military					2	1.4
	Age (child 4)	21	1.00	23.00	10.1905 (7.31860)		
	Educational level (child 4)	42					
	Illiterate					1	.7
	Primary					15	10.9
	Middle					9	6.5
	Secondary					13	9.4
	BA/ Diploma					4	2.9
	Health status (child 4)						
	Healthy					54	39.1
	Specify the type of sickness (child 4)						
	Specify the type of disability (child 4)						
	Does the fourth child work	54					
	Work					3	2.2
	Doesn't work					51	37.0
	Specify fourth child type of work	3					
	Military					2	1.4
	Teacher					1	.7
	Age (child 5)	10	1.00	21.00	9.8000 (7.03641)		
	Educational level (child 5)	17					
	Primary					6	4.3
	Middle					7	5.1
	Secondary					2	1.4
	BA/ Diploma					2	1.4
	Health status (child 5)						

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Healthy					21	15.2
	Specify the type of sickness (child 5)						
	Specify the type of disability (child 5)						
	Does the fifth child work	21					
	Work					2	1.4
	Doesn't work					19	13.8
	Specify fifth child type of work						
	Teacher					1	.7
	Age (child 6)	6	1.00	16.00	7.1667 (5.77639)		
	Educational level (child 6)	10					
	Primary					9	6.5
	Middle					1	.7
	Health status (child 6)						
	Healthy					13	9.4
	Specify the type of sickness (child 6)						
	Specify the type of disability (child 6)						
	Does the sixth child work						
	Work					0	0
	Doesn't work					13	9.4
	Specify sixth child type of work						
	Age (child 7)	3	5.00	8.00	7.0000 (1.73205)		
	Educational level (child 7)						
	Primary					7	5.1
	Health status						

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	(child 7)						
	Healthy					8	5.8
	Specify the type of sickness (child 7)						
	Specify the type of disability (child 7)						
	Does the seventh child work						
	Work					0	0
	Doesn't work					8	5.8
	Specify seventh child type of work						
	Age (child 8)						
	Educational level (child 8)						
	Primary					3	2.2
	Health status (child 8)						
	Healthy					3	2.2
	Specify the type of sickness (child 8)						
	Specify the type of disability (child 8)						
	Does the eighth child work						
	Work					0	0
	Doesn't work					3	2.2
	Specify eighth child type of work						
	Age (child 9)						
	Educational level (child 9)						
	Primary					3	2.2
	Health status (child 9)						
	Healthy					3	2.2
	Specify the type						

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	of sickness (child 9)						
	Specify the type of disability (child 9)						
	Does the ninth child work						
	Work					0	0
	Doesn't work					3	2.2
	Specify ninth child type of work						

Income:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What are the income resources for your family	128					
	Public sector job	63					49.2
	Private sector job	17					13.3
	Free business job	34					26.6
	Agricultural practices/ specify what type of agricultural practices	4					3.1
	Breeding	10					7.8
	Specify the public sector job	53					
	Military					12	8.7
	School guard					2	1.4
	Health Center					2	1.4
	Retired					16	11.6
	Teacher					6	4.3

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Municipality employee					9	6.5
	Ministry of Agriculture					2	1.4
	Water Authority					3	2.2
	Driver					1	.7
	Specify the private sector job	7					
	Company					3	2.2
	Farmer					1	.7
	Restaurant					1	.7
	Driver					2	1.4
	Specify the free business job	18					
	Mechanic					1	.7
	Barber shop					2	1.4
	Building worker					6	4.3
	Lawyer					2	1.4
	Carpenter					1	.7
	Herdsman					6	4.3
	What kind of livestock are you raising						
	Sheep					5	3.6
	Specify number of livestock	7	20.00	4300.00	973.1429 (1630.53441)		
	Family monthly income	112	50.00	900.00	319.0714 (139.35428)		
	Are there any home industries that you produce	123					
	No					115	83.3
	Yes					8	5.8
	Specify these industries	8					
	Yoghurts					7	5.1

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Gams					1	.7

Services:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What available water resources do you have	134					
	Water network	114					85.1
	Water tanks	17					12.7
	Water springs	3					2.2
	For what purposes do you use water on the household level	27					
	In agriculture					18	13.0
	For livestock					9	6.5
	how much water do you consume in a single month	71	3.00	100.00	25.9577 (21.74425)		
	Water bill amount	80	5.00	213.00	31.0625 (46.41048)		
	Problems faced about water services	179					
	Shortage in general	36					20.1
	Water quality	53					29.6
	Difficult to deliver	27					15.1
	High price	63					35.2

4.1 health Services:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Does your family have a	123					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	health insurance						
	Yes					81	58.7
	No					42	30.4
	Specify the health insurance type	71					
	Military					18	13.0
	Public					44	31.9
	Private					2	1.4
	Poor families' insurance					7	5.1
	How do you get these health services	124					
	Public hospitals' clinics					108	78.3
	Private hospitals' clinics					16	11.6
	What does your family depend on to treat regular common diseases	148					
	Visit the doctor					104	70.3
	Use traditional treatments using medicinal plants					44	29.7
	How far is the nearest health center from which you receive health services (km)	116	.20	50.00	6.6009 (8.96806)		
	How far is the nearest hospital from	105	1.00	120.00	68.4571 (32.78397)		

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	which you receive health services (km)						
	Problems faced about health services	278					
	Lack of monthly treatments					57	20.5
	Inefficiency of the medical staff					17	6.1
	Bad services					7	2.5
	Lack of equipment's for treatment procedures					25	9.0
	High price of the drug					1	.4
	transportation difficulties					8	2.9
	Patients' crowding					2	.7
	Lack of appropriate rooms for the patients					3	1.1
	Lack of specialty doctors					63	22.7
	Late in appointments					1	.4
	There are no problems					1	.4
	Distance between health centers and homes					1	.4
	lack of medical staff					9	3.2
	No dentist clinic					1	.4
	Hospitals are					25	9.0

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	way too far						
	No laboratories					3	1.1
	No clinic after working hours are closed					11	4.0
	Lack of sanitation services					2	.7
	Lack of operations					3	1.1
	Some analysis are not available					13	4.7
	Lack of birth center					25	9.0

4.2 Educational services:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Where does your children receive education	114					
	State schools					112	81.2
	Military schools					2	1.4
	How far is the nearest male school (km)	96	.05	50.00	3.0234 (7.38893)		
	Specify the educational levels for male schools	50					
	All levels					45	32.6
	Until 6th grade					1	.7
	Until 3rd grade					4	2.9
	How far is the nearest female school (km)	91	.05	20.00	1.7632 (2.71379)		
	Specify the	48					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	educational levels for female schools						
	All levels					47	34.1
	Until 4th grade					1	.7
	Problems faced about educational services	161					
	The lack of schools nearby					7	4.3
	Few schools					1	.6
	lack of appropriate educational services					28	17.4
	Difficulty of the new curricula					1	.6
	Low level of education					9	5.6
	large number of students					2	1.2
	Small classrooms					6	3.7
	Bullying among students					1	.6
	Not taking into account the individual differences of students					1	.6
	Not taking into account the “activities” class for students					1	.6
	transportation Difficulties					4	2.5
	No “scientific stream”					2	1.2

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	No capacities					22	13.7
	No educational courses for students					2	1.2
	Ministry of Education lack of attention to rural areas					11	6.8
	The lack of an educated administration					4	2.5
	The lack of academic specializations					17	10.6
	Shortage of male teachers					19	11.8
	Teaching teachers without specialization					18	11.2
	Shortage of male and female teachers					5	3.1

4.3 energy resources:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What is your main lighting source	123					
	Electricity network					109	79.0
	Electricity generators					11	8.0
	Solar energy					3	2.2
	What was the main source of heating you had during the	124					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	last winter						
	Gas heater					62	44.9
	Electric heater					12	8.7
	Diesel gas heater					29	21.0
	firewood					21	15.2
	What is the source of firewood						
	Local market					12	8.7
	What do you use for cooking in your own home	124					
	Gas stove					110	79.7
	Firewood					14	10.1

4.4 food needs:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Determine where does your family gets most of the nutritional needs	127					
	Local market					123	89.1
	Livestock					4	2.9
	How does your family get your daily bread	128					
	Local bakery					121	87.7
	Taboon					2	1.4
	Griddle (Saj)					5	3.6
	What do you use for the bread / tabun or Griddle	18					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	(Saj)						
	Gas					2	1.4
	Firewood					16	11.6
	What is the source of firewood						
	What is the nature of your usual daily food	362					
	Rice	38					10.5
	Bread	32					8.8
	Meat	43					11.9
	Fish	5					1.4
	Vegetables	92					25.4
	Dairy products	33					9.1
	Legumes	44					12.2
	Fruits	20					5.5
	Poultry	38					10.5
	Oil	2					.6
	Olives	2					.6
	Mansaf	1					.3
	Maalobah	1					.3
	Kabseh	1					.3
	Lentil	10					2.8

Land and livestock ownership:

First: If your family owns agricultural and pastoral lands, answer the following:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	How much is the area for the land you own	23	.60	42.00	6.4043 (11.18616)		
	How much is the area for the land you own and use for agriculture	9	1.00	100.00	17.2222 (31.68508)		

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Determine what crops you grow	16					
	Olive	7					43.8
	Clover	2					12.5
	Vegetables	3					18.8
	Pomegranate	2					12.5
	Apple	1					6.2
	Palm	1					6.2
	Source of water used in agriculture	14					
	Rainwater					10	7.2
	Groundwater					4	2.9
	How much is the area for the land you own and use for grazing	4	1.00	15.00	8.7500 (7.32006)		
	What are the standards for lands used for grazing or cultivation	12					
	number of family members					2	1.4
	Water availability					10	7.2
	What is the purpose of agriculture	17					
	Trading					1	.7
	Providing pasture for livestock					2	1.4
	Family consumption of agricultural products					14	10.1
	In case that the entire area is not	28					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	cultivated, what are the reasons						
	Financial inability	11					39.3
	Soil infertility	7					25.0
	water shortage	9					32.1
	Overgrazing	1					3.6
	First important crop	13					
	Barley					1	.7
	Vegetables					2	1.4
	Fruits					2	1.4
	Clovers					1	.7
	Olives					7	5.1
	Second important crop	10					
	Barley					1	.7
	Wheat					1	.7
	Vegetables					2	1.4
	Fruits					3	2.2
	Clover					1	.7
	Olives					2	1.4
	Third important crop	4					
	Forestry trees					2	1.4
	Vegetables					2	1.4
	Fourth important crop						
	Determine the reasons for your preference for these crops	7					
	Material profit	3					42.9
	Livestock consumption	2					28.6
	For family consumption	2					28.6

Second: If your family owns livestock, answer the following:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What kind of livestock do you own	14					
	Camels					1	7.1
	Goats					8	57.1
	Lamb					5	35.7
	How many camels do you own	1	2000.00	2000.00	2.0000 (.)		
	How many goats do you own	7	2.00	700.00	1.3029 (252.28404)		
	How many lambs do you own	4	10.00	75.00	51.7500 (29.53388)		
	What is the nature of your family's livestock ownership						
	Individual					9	6.5
	Shared					0	0
	What is your family's livestock rearing style	9					
	Closed barn					6	4.3
	Open barn					3	2.2
	What is the main source for livestock feeding	9					
	Fodder					4	2.9
	Grazing and fodder					5	3.6
	Determine what are the most common months for						

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	grazing throughout the year						
	spring					1	.7
	If you use grazing, what is the main reason	13					
	The small size of rangelands	6					46.2
	Few grazing plants available in the rangelands	3					23.1
	To increase the livestock productivity	1					7.7
	Moving difficulties during the livestock grazing	3					23.1
	Where do you graze	9					
	Own land only					1	.7
	Lands of communal pastures					8	5.8
	Do you move with livestock during the grazing season	9					
	No					6	4.3
	Yes					3	2.2
	If (yes), what are the areas that you move in through the summer season	3					
	Al-Azraq					2	1.4
	Al-Rajel area					1	.7
	If (yes), what	3					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	are the areas that you move in through the winter season						
	Al-Azraq					2	1.4
	Al-Safawi					1	.7
	How do you move with livestock	3					
	By vehicles					1	.7
	By vehicles and on feet					2	1.4
	With whom do you move with livestock						
	Family members					3	2.2
	What kind of fodder do you use	20					
	Barley	8					40.0
	Bran	6					30.0
	Clover	6					30.0
	Barley/amount	6	2.00	5.00	2.5333 (1.21106)		
	Barley/price	5	200.00	400.00	3.4600 (84.14274)		
	Bran/amount	5	1.00	10.00	6.6000 (4.66905)		
	Bran/price	5	30.00	380.00	1.0800 (153.03594)		
	Clover/amount	4	2.00	35.00	24.2500 (15.01943)		
	Clover/price	3	35.00	35.00	35.0000 (.00000)		
	In what way do you vaccinate your livestock						
	Natural	9					6.5
	Artificial	0					0
	How do you treat your livestock in	9					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	sick conditions						
	Veterinarians					1	.7
	Ministry of Agriculture					5	3.6
	Agricultural societies and institutions					2	1.4
	Care does not exist					1	.7
	What are the diseases spread among the livestock	19					
	Intestinal poisoning	6					31.6
	قلاعية	4					21.1
	smallpox	1					5.3
	Fleas	4					21.1
	Pneumonia	2					10.5
	Maltese	2					10.5
	Reasons for low productivity of livestock	13					
	Pastures productivity decreased					5	38.5
	The high cost of fodder					4	30.8
	Low prices of livestock					2	15.4
	Marketing difficulties					2	15.4
	Women participation in raising the livestock	20					
	Grazing	2					10.0
	Milking	7					35.0
	newborns care	4					20.0
	Fattening	1					5.0
	Dairy manufacture	6					30.0

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	and derivatives						
	Obstacles faced within plant and animal sector	78					
	Water shortage	17					21.8
	The lack of agricultural areas and lands for cultivation	11					14.1
	The lack of financial capabilities for agricultural and animal production	1					1.3
	The high cost of fodder	7					9.0
	Overgrazing	9					11.5
	High prices of lands	2					2.6
	Bad soil	5					6.4
	The lack of places for raising animals	3					3.8
	Rainfall shortage in winter season	1					1.3
	Unavailability of seeds	1					1.3
	Unavailability of markets	3					3.8
	Lack of medicine	4					5.1
	The lack of a veterinary hospital	4					5.1
	Lack of pastures	8					10.3
	Lack of	2					2.6

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	expertise						
	Proposed projects	36					
	Donors help and provide animal and agricultural production	2					5.6
	Wells drilling	9					25.0
	Reducing fodder prices	2					5.6
	establishing reserves	8					22.2
	Providing mobile veterinary clinics	1					2.8
	Opening factories for dairy marketing	2					5.6
	Fodder distribution	3					8.3
	Pastures cultivation	4					11.1
	Water provision	1					2.8
	Financial and technical support	1					2.8
	Training and rehabilitation	2					5.6
	Marketing	1					2.8

Annex A

A-3 Results of the Statistical Analysis

Information Related to the Respondent

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Respondents as	146					
	Husband					120	80.0
	Wife					16	10.7
	Son					9	6.0
	Daughter					1	.7
	Age	75.00	20.00	129	42.8140 (11.41118)		
	Educational level	133					
	Primary					28	18.7
	Middle					25	16.7
	Secondary					61	40.7
	BA/ Diploma					14	9.3
	Graduate studies					5	3.3

Family Residence:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Residency location/ Village	150					
	Al-Mahamadieh					21	14.0
	Al-Manshiyeh					97	64.7
	Al-Jarba'a					21	14.0
	Abu Al-'alaq					1	.7
	Athroh					10	6.7
	Family residency type						
	Permanent					150	100.0
	Non-permanent					0	0
	Residence type	150					
	Stone house					25	16.7
	Brick house					123	82.0
	Tent					2	1.3
	Do you own other houses						
	No					150	100.0

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Yes					0	0
	Do you share your home with another family	150					
	No					147	98.0
	Yes					3	2.0
	With whom do you share residency	3					
	My married children					1	.7
	My married siblings					1	.7
	My parents					1	.7
	Number of rooms	147					
	One room					0	0
	Two rooms					8	5.3
	Three rooms					57	38.0
	Four rooms					64	42.7
	Five rooms					18	12.0

Information Related to The Family:

Information Related to Head of The Family:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Age	140	20.00	75.00	45.4143 (11.47784)		
	Educational level	141					
	Primary					30	20.0
	Middle					28	18.7
	Secondary					71	47.3
	BA/ Diploma					8	5.3
	Graduate studies					4	2.7
	Health status	148					
	Healthy					131	87.3
	Sick					17	11.3
	Disabled					0	0
	Specify the type of sickness	16					
	Blood pressure					1	.7

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Diabetes					10	6.7
	Heart disease					2	1.3
	Asthma					2	1.3
	Desk					1	.7
	Specify the type of disability						
	Paralysis					1	.7
	Does the head of the family work	142					
	Work					121	80.7
	Doesn't work					21	14.0
	Specify type of work	93					
	Retirement salary					50	33.3
	Military salary					16	10.7
	School guard					5	3.3
	Teacher					1	.7
	Municipality employee					4	2.7
	Free business					10	6.7
	Ministry of Awqaf Islamic Affairs and Holy Places					6	4.0
	Water Authority					1	.7
	Monthly income amount	135	90.00	2000.00	459.7037 (330.11009)		

Information Related to the Wife(s):

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Age (First wife)	30	23.00	60.00	38.9667 (9.75381)		
	Educational level (First wife)	143					
	Illiterate					26	17.3
	Primary					16	10.7
	Middle					30	20.0
	Secondary					37	24.7
	BA/ Diploma					34	22.7

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Graduate studies					0	0
	Health status (First wife)	142					
	Healthy					135	90.0
	Sick					7	4.7
	Specify the type of sickness (First wife)						
	Diabetes					6	4.0
	Does the first wife work	138					
	Work					30	20.0
	Doesn't work					108	72.0
	Specify first wife type of work	18					
	Teacher					8	5.3
	Municipality employee					2	1.3
	Military					3	2.0
	Nurse					2	1.3
	Health center					2	1.3
	Clothes sewn					1	.7
	Age (second wife)	1	33.00	33.00	33.0000		
	Educational level (second wife)	10					
	Illiterate					5	3.3
	Primary					2	1.3
	Middle					1	.7
	Secondary					1	.7
	BA/ Diploma					1	.7
	Health status (second wife)						
	Healthy					11	7.3
	Specify the type of sickness (second wife)						
	Does the second wife work	11					
	Work					2	1.3
	Doesn't work					9	6.0
	Specify second wife type of work	2					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Teacher					1	.7
	Municipality services					1	.7
	Age (third wife)						
	Educational level (third wife)						
	Primary					1	.7
	Health status (third wife)						
	Healthy					1	.7
	Specify the type of sickness (third wife)						
	Does the third wife work						
	Work					0	0
	Doesn't work					1	.7
	Specify third wife type of work						

Information related to children:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Age (child 1)	59	2.00	40.00	16.6102 (10.93873)		
	Educational level (child 1)	122					
	Primary					39	26.0
	Middle					25	16.7
	Secondary					40	26.7
	BA/ Diploma					17	11.3
	Graduate studies					1	.7
	Health status (child 1)						
	Healthy					134	89.3
	Specify the type of sickness (child 1)						
	Specify the type of disability (child 1)						

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Impaired mobility					2	1.3
	Does the first child work	134					
	Work					43	28.7
	Doesn't work					91	60.7
	Specify first child type of work	35					
	Military					28	18.7
	Free business					3	2.0
	Health center					1	.7
	Teacher					2	1.3
	Ministry of Awqaf Islamic Affairs and Holy Places					1	.7
	Age (child 2)	55	1.00	37.00	15.4909 (10.53543)		
	Educational level (child 2)	110					
	Primary					33	22.0
	Middle					26	17.3
	Secondary					33	22.0
	BA/ Diploma					15	10.0
	Graduate studies					3	2.0
	Health status (child 2)						
	Healthy					121	80.7
	Specify the type of sickness (child 2)						
	Specify the type of disability (child 2)						
	Does the second child work	121					
	Work					20	13.3
	Doesn't work					101	67.3
	Specify second child type of work	13					
	Municipality					4	2.7

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	employee						
	Free business					2	1.3
	Military					6	4.0
	University employee					1	.7
	Age (child 3)	36	1.00	34.00	16.5833 (9.70530)		
	Educational level (child 3)	68					
	Illiterate					1	.7
	Primary					24	16.0
	Middle					8	5.3
	Secondary					20	13.3
	BA/ Diploma					14	9.3
	Graduate studies					1	.7
	Health status (child 3)						
	Healthy					80	53.3
	Specify the type of sickness (child 3)						
	Specify the type of disability (child 3)						
	Does the third child work	78					
	Work					12	8.0
	Doesn’t work					66	44.0
	Specify third child type of work	12					
	Free business					3	2.0
	Military					8	5.3
	Ministry of Awqaf Islamic Affairs and Holy Places					1	.7
	Age (child 4)	30	1.00	32.00	15.2000 (11.33016)		
	Educational level (child 4)	51					
	Illiterate					1	.7
	Primary					26	17.3

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Middle					6	4.0
	Secondary					13	8.7
	BA/ Diploma					4	2.7
	Graduate studies					1	.7
	Health status (child 4)						
	Healthy					58	38.7
	Specify the type of sickness (child 4)						
	Specify the type of disability (child 4)						
	Does the fourth child work	58					
	Work					7	4.7
	Doesn't work					51	34.0
	Specify fourth child type of work	7					
	Military					6	4.0
	Phosphate company					1	.7
	Age (child 5)	26	3.00	31.00	12.9231 (9.82618)		
	Educational level (child 5)	22					
	Primary					9	6.0
	Middle					8	5.3
	Secondary					2	1.3
	BA/ Diploma					2	1.3
	Graduate studies					1	.7
	Health status (child 5)						
	Healthy					37	24.7
	Specify the type of sickness (child 5)						
	Specify the type of disability (child 5)						
	Does the fifth child work	37					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Work					6	4.0
	Doesn't work					31	20.7
	Specify fifth child type of work						
	Military					6	4.0
	Age (child 6)	13	5.00	30.00	16.2308 (8.26795)		
	Educational level (child 6)	18					
	Primary					12	8.0
	Secondary					5	3.3
	BA/ Diploma					1	.7
	Health status (child 6)						
	Healthy					19	12.7
	Specify the type of sickness (child 6)						
	Specify the type of disability (child 6)						
	Does the sixth child work	19					
	Work					3	2.0
	Doesn't work					16	10.7
	Specify sixth child type of work						
	Military					3	2.0
	Age (child 7)	6	3.00	24.00	15.8333 (9.30412)		
	Educational level (child 7)	11					
	Primary					2	1.3
	Middle					6	4.0
	Secondary					3	2.0
	Health status (child 7)						
	Healthy					12	8.0
	Specify the type of sickness (child 7)						

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Specify the type of disability (child 7)						
	Does the seventh child work	12					
	Work					3	2.0
	Doesn't work					9	6.0
	Specify seventh child type of work						
	Military					3	2.0
	Age (child 8)	5	14.00	23.00	19.4000 (4.92950)		
	Educational level (child 8)	5					
	Middle					2	1.3
	Secondary					3	2.0
	Health status (child 8)						
	Healthy					5	3.3
	Specify the type of sickness (child 8)						
	Specify the type of disability (child 8)						
	Does the eighth child work	5					
	Work					3	2.0
	Doesn't work					2	1.3
	Specify eighth child type of work						
	Military					3	2.0

Income:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What are the income resources for	175					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	your family						
	Public sector job	119					68.0
	Private sector job	20					11.4
	Free business job	14					8.0
	Agricultural practices/ specify what type of agricultural practices	1					.6
	Breeding	21					12.0
	Specify the public sector job	89					
	Military					31	20.7
	School guard					6	4.0
	Retired					32	21.3
	Teacher					3	2.0
	Municipality employee					9	6.0
	Ministry of Agriculture					3	2.0
	المؤسسة المدنية					1	.7
	Ministry of Awqaf Islamic Affairs and Holy Places					4	2.7
	Specify the private sector job	14					
	Private school teacher					2	1.3
	Company					1	.7
	Farmer					11	7.3
	Specify the free business job						
	What kind of livestock are you raising	13					
	Sheep					6	4.0

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Lamb					7	4.7
	Family monthly income	127	100.00	2500.00	5.0898 (402.37753)		
	Are there any home industries that you produce	117					
	No					110	73.3
	Yes					7	4.7
	Specify these industries						
	Yoghurts					5	3.3

Services:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What available water resources do you have	151					
	Water network	141					93.4
	Water tanks	1					.7
	Water springs	9					6.0
	For what purposes do you use water on the household level	72					
	In agriculture					16	10.7
	For livestock					56	37.3
	how much water do you consume in a single month	105	2.00	2000.00	95.4095 (309.36441)		
	Water bill amount	116	4.00	100.00	19.0345 (15.85858)		
	Problems faced about water services	259					
	Shortage in general	83					32.0
	Water quality	47					18.1

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Difficult to deliver	53					20.5
	High price	76					29.3

4.1 health Services:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Does your family have a health insurance	141					
	Yes					134	89.3
	No					7	4.7
	Specify the health insurance type	128					
	Heir's retirement					1	.7
	Military					72	48.0
	Public					55	36.7
	How do you get these health services	142					
	Public hospitals' clinics					138	92.0
	Private hospitals' clinics					4	2.7
	What does your family depend on to treat regular common diseases	169					
	Visit the doctor					136	80.5
	Use traditional treatments using medicinal					33	19.5

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	plants						
	How far is the nearest health center from which you receive health services (km)	144	.05	30.00	5.7781 (6.59096)		
	How far is the nearest hospital from which you receive health services (km)	142	1.00	70.00	21.9268 (11.60862)		
	Problems faced about health services	314					
	Lack of monthly treatments					74	23.6
	Inefficiency of the medical staff					11	3.5
	Bad services					22	7.0
	Lack of equipment's for treatment procedures					34	10.8
	High price of the drug					9	2.9
	transportation difficulties					27	8.6
	Patients' crowding					5	1.6
	lack of medical staff					45	14.3
	Late in appointments					5	1.6
	There are no problems					4	1.3
	Distance between health centers and homes					7	2.2

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	No dentist clinic					17	5.4
	Hospitals are way too far					22	7.0
	No laboratories					10	3.2
	Health center space is too small					4	1.3
	No clinic after working hours are closed					5	1.6
	No pharmacy					13	4.1

4.2 educational services:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Where does your children receive education	127					
	State schools					119	79.3
	Military schools					1	.7
	Private schools					7	4.7
	How far is the nearest male school (km)	115	.10	20.00	3.7043 (4.20971)		
	Specify the educational levels for male schools	89					
	All levels					68	45.3
	Until 10th grade					3	2.0
	Until 6th grade					5	3.3
	Until 3rd grade					13	8.7
	How far is the nearest female school	101	.10	22.00	3.2891 (3.22933)		

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	(km)						
	Specify the educational levels for female schools	87					
	All levels					66	44.0
	Until 2nd grade					7	4.7
	Until 4th grade					5	3.3
	Until 11th grade					9	6.0
	Problems faced about educational services	206					
	The lack of schools nearby					22	10.7
	Few schools					13	6.3
	lack of appropriate educational services					40	19.4
	Rented building					5	2.4
	Difficulty of the new curricula					16	7.8
	Low level of education					15	7.3
	large number of students					17	8.3
	Small classrooms					17	8.3
	Bullying among students					1	.5
	Not taking into account the “activities” class for students					3	1.5

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	transportation Difficulties					19	9.2
	No "scientific stream"					23	11.2
	No class for "students' with special cases"					2	1.0
	No capacities					9	4.4
	No educational courses for students					4	1.9

4.3 energy resources:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What is your main lighting source	145					
	Electricity network					143	95.3
	Gas lamps					2	1.3
	What was the main source of heating you had during the last winter	141					
	Gas heater					99	66.0
	Electric heater					3	2.0
	Diesel gas heater					19	12.7
	firewood					20	13.3
	What is the source of firewood	9					
	pressed olive residues					6	4.0
	Local market					3	2.0
	What do you use for	144					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	cooking in your own home						
	Gas stove					139	92.7
	Firewood					5	3.3

4.4 food needs:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Determine where does your family gets most of the nutritional needs	145					
	Local market					132	88.0
	Livestock					4	2.7
	Agriculture					9	6.0
	How does your family get your daily bread	140					
	Local bakery					137	91.3
	Griddle (Saj)					3	2.0
	What do you use for the bread / tabun or Griddle (Saj)	47					
	Gas					44	29.3
	Firewood					3	2.0
	What is the source of firewood						
	What is the nature of your usual daily food	454					
	Rice	61					13.4
	Bread	63					13.9
	Meat	56					12.3

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Fish	18					4.0
	Vegetables	101					22.2
	Dairy products	26					5.7
	Legumes	37					8.1
	Fruits	26					5.7
	Poultry	22					4.8
	Oil	5					1.1
	Olives	1					.2
	Mansaf	7					1.5
	Maalobah	1					.2
	Kabseh	4					.9
	Rashoof	9					2.0
	Lentil	15					3.3
	Mulukhyieh	2					.4

Land and livestock ownership:

First: If your family owns agricultural and pastoral lands, answer the following:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	How much is the area for the land you own	61	.50	150.00	19.6393 (29.35503)		
	How much is the area for the land you own and use for agriculture	33	1.00	100.00	13.3333 (20.76756)		
	Determine what crops you grow	87					
	Barley	35					40.2
	Wheat	20					23.0
	Olive	3					3.4
	Lentils	11					12.6
	Clover	15					17.2
	Vegetables	3					3.4
	Source of water used in agriculture	44					
	Rainwater					31	20.7

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Groundwater					4	2.7
	Ponds or/and wells					9	6.0
	How much is the area for the land you own and use for grazing	34	1.00	200.00	17.7353 (37.34305)		
	What are the standards for lands used for grazing or cultivation	41					
	number of family members					4	2.7
	Water availability					27	18.0
	Equipments' availability					10	6.7
	What is the purpose of agriculture	50					
	Trading					7	4.7
	Providing pasture for livestock					25	16.7
	Family consumption of agricultural products					18	12.0
	In case that the entire area is not cultivated, what are the reasons	107					
	Financial inability	16					15.0
	Soil infertility	6					5.6
	water shortage	37					34.6
	Overgrazing	3					2.8
	Lack of machines to	29					27.1

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	plow the land						
	Groundwater wells are not available	5					4.7
	Constant power outages from the groundwater wells	4					3.7
	Unavailability of seeds	6					5.6
	The long-distance to nearest central market	1					.9
	First important crop	63					
	Barley					26	17.3
	Wheat					20	13.3
	Forestry trees					4	2.7
	Vegetables					12	8.0
	Clovers					1	.7
	Second important crop	53					
	Barley					15	10.0
	Wheat					15	10.0
	Forestry trees					4	2.7
	Vegetables					2	1.3
	Clover					17	11.3
	Third important crop	27					
	Barley					2	1.3
	Wheat					6	4.0
	Forestry trees					2	1.3
	Vegetables					3	2.0
	Clover					14	9.3
	Fourth important crop	8					
	Barley					2	1.3
	Wheat					1	.7
	Vegetables					3	2.0
	Clover					2	1.3

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Determine the reasons for your preference for these crops	14					
	Material profit	3					21.4
	Livestock consumption	7					50.0
	Preserving the land	4					28.6

Second: If your family owns livestock, answer the following:

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	What kind of livestock do you own	88					
	Camels					1	1.1
	Goats					44	50.0
	Lamb					43	48.9
	How many camels do you own	1	4.00	4.00	4.0000		
	How many goats do you own	36	3.00	150.00	22.3056 (29.72524)		
	How many lambs do you own	30	8.00	200.00	63.1000 (49.51165)		
	What is the nature of your family's livestock ownership	52					
	Individual					50	33.3
	Shared					2	1.3
	What is your family's livestock rearing style	50					
	Closed barn					23	15.3

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Open barn					27	18.0
	What is the main source for livestock feeding	63					
	Grazing					1	.7
	Fodder					25	16.7
	Grazing and fodder					37	24.7
	Determine what are the most common months for grazing throughout the year						
	spring					15	10.0
	If you use grazing, what is the main reason	111					
	The small size of rangelands	34					30.6
	Few grazing plants available in the rangelands	39					35.1
	To increase the livestock productivity	22					19.8
	Moving difficulties during the livestock grazing	14					12.6
	Fodder prices	2					1.8
	Where do you graze	63					
	Own land only					28	18.7
	Lands of communal pastures					29	19.3
	Rented lands					6	4.0

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Do you move with livestock during the grazing season	64					
	No					33	22.0
	Yes					31	20.7
	If (yes), what are the areas that you move in through the summer season	13					
	Same area					3	2.0
	Mountain highlands					10	6.7
	If (yes), what are the areas that you move in through the winter season						
	Deserted areas					10	6.7
	How do you move with livestock	33					
	By vehicles					4	2.7
	On feet					8	5.3
	By vehicles and on feet					21	14.0
	With whom do you move with livestock	27					
	Family members					9	6.0
	With part of my family					11	7.3
	Nobody, I hire a herdsman					7	4.7
	What kind of fodder do you use	182					
	Barley	65					35.7
	Hay	35					19.2
	Bran	53					29.1

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	Corn	6					3.3
	Wheat	1					.5
	Clover	22					12.1
	Barley/amount	42	.50	60.00	14.9643 (19.17232)		
	Barley/price	46	10.00	2000.00	1.8407 (311.93970)		
	Hay/amount	22	3.00	400.00	80.5909 (100.41374)		
	Hay/price	25	2.50	950.00	1.3510 (257.01856)		
	Bran/amount	31	.50	60.00	11.9032 (17.40422)		
	Bran/price	35	5.00	1000.00	1.2389 (169.51623)		
	Corn/amount	7	2.00	40.00	19.8571 (19.03005)		
	Corn/price	7	10.00	60.00	22.8571 (17.04336)		
	Wheat/amount	1	20.00	20.00	20.0000		
	Wheat/price	1	20.00	20.00	20.0000		
	Clover/amount	7	2.00	150.00	38.8571 (50.38991)		
	Clover/price	8	4.00	250.00	83.5000 (108.10279)		
	In what way do you vaccinate your livestock	57					
	Natural	48					32.0
	Artificial	9					6.0
	How do you treat your livestock in sick conditions	58					
	Veterinarians					20	13.3
	Agricultural societies and institutions					9	6.0
	Care does not exist					29	19.3
	What are the diseases spread among	170					

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	the livestock						
	Intestinal poisoning	46					27.1
	قلاعية	30					17.6
	smallpox	32					18.8
	Labor difficulties	5					2.9
	Fleas	1					.6
	Pneumonia	11					6.5
	Plague	27					15.9
	Maltese	18					10.6
	Reasons for low productivity of livestock	84					
	Pastures productivity decreased					14	16.7
	The high cost of fodder					53	63.1
	Low prices of livestock					13	15.5
	Marketing difficulties					4	4.8
	Women participation in raising the livestock	114					
	Grazing	7					6.1
	Milking	39					34.2
	newborns care	19					16.7
	Dairy manufacture and derivatives	46					40.4
	Marketing	3					2.6
	Obstacles faced within plant and animal sector	265					
	Water shortage	82					30.9
	The lack of	12					4.5

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	artesian wells close to the area						
	The lack of agricultural areas and lands for cultivation	32					12.1
	The lack of financial capabilities for agricultural and animal production	6					2.3
	High prices of livestock	1					.4
	The high cost of fodder	35					13.2
	Overgrazing	6					2.3
	Bad soil	7					2.6
	The lack of places for raising animals	10					3.8
	Unavailability of seeds	2					.8
	Unavailability of markets	3					1.1
	The lack of a veterinary hospital	29					10.9
	Lack of pastures	10					3.8
	Low livestock prices	30					11.3
	Proposed projects	164					
	Donors help and provide animal and agricultural production	16					9.8
	Wells drilling	39					23.8
	Reducing	25					15.2

#	Q	N	Min	Max	Mean (±SD)	Frequency	Percent %
	fodder prices						
	Livestock care	8					4.9
	Barley production and improving the chances of its uses	5					3.0
	Increasing farmers' income by increasing production capacity	7					4.3
	Supporting the efforts of the concerned national programs and agencies, especially scientific research	6					3.7
	establishing reserves	15					9.1
	Providing mobile veterinary clinics	30					18.3
	Opening factories for dairy marketing	2					1.2
	Crop cultivation according to climate	2					1.2
	Provide jobs	6					3.7
	Provide importing opportunities for livestock owners	3					1.8