

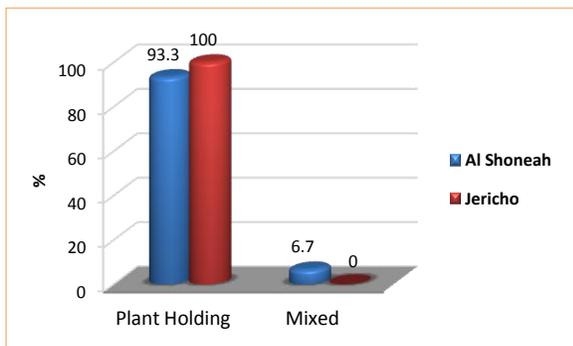
# Comparison between Jericho and Al Shouneh Al-Janoubeyeh

## Main Results

### AGRICULTURE HOLDINGS

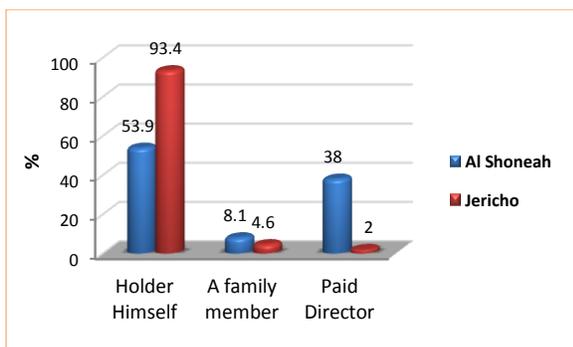
The results showed that the highest percentage of the sample agriculture holdings type were plant production 100% in Jericho and 93% in Al Shouneh (figure 1).

**Figure 1: Agriculture holding types in Jericho and Al Shouneh sample.**



As for agriculture holding management methods 93.4% of Jericho and 53.9% of Al Shouneh holdings were managed by the holder himself, 38% are managed by Paid director in Al Shouneh and only 2% in Jericho (figure 2).

**Figure 2: Agriculture Holdings Management Methods in Jericho and Al Shouneh Sample**



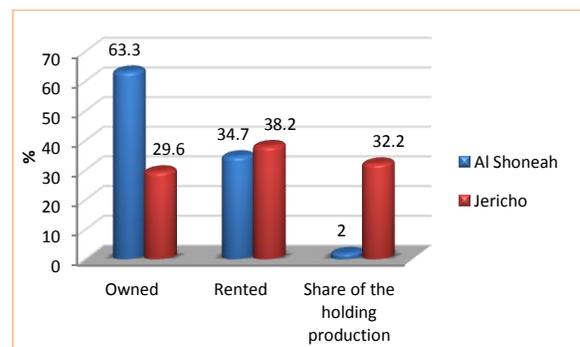
The results showed that the main purpose of the production of the sample agriculture holdings in Jericho and Al Shouneh was for sale (figure 3).

**Figure 3: Main purpose of production in the sample agriculture holdings in Jericho and Al Shouneh**



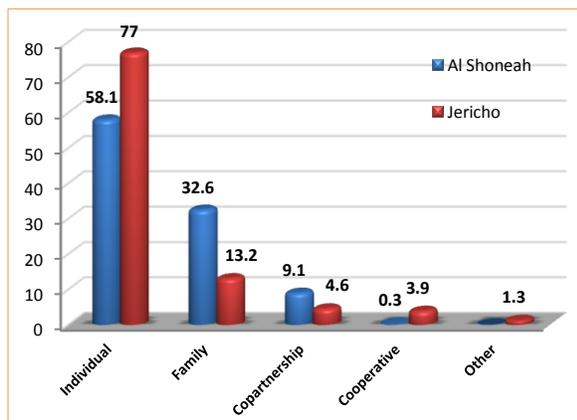
The highest percentage of the sample agriculture holdings in Al Shouneh was for owned property (63.3%), while it was rented in Jericho (38.2). On the other hand 32.2% of Jericho sample was leased for a share of the agriculture holding production (figure 4).

**Figure 4: Land tenure in Jericho and Al Shouneh sample**



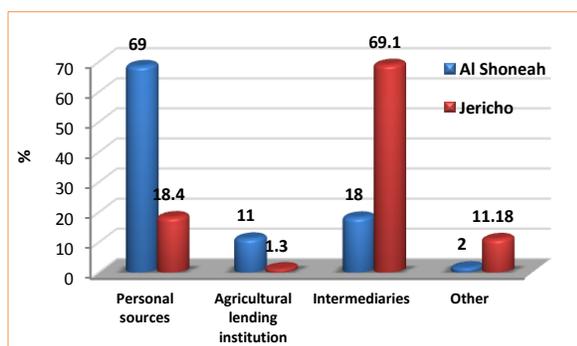
Males hold most of the sample agriculture holdings in Jericho and Al Shouneh 95.4% and 97% respectively. Most of the sample agriculture holdings in Jericho and Al Shouneh were held legally by the holder themselves, 77% and 58.1% respectively (figure 5).

**Figure 5: Legal Status of agriculture holdings in Jericho and Al Shouneh sample**



The main source of agriculture holdings funding was by intermediaries in Jericho (69.1%), while in Al Shouneh was by the holders (69%) (figure 6).

**Figure 6: Agriculture Holdings main source of funding in Jericho and Al Shouneh sample**



Other source of findings including Banks in AL Shouneh and both intermediaries and personal sources in Jericho.

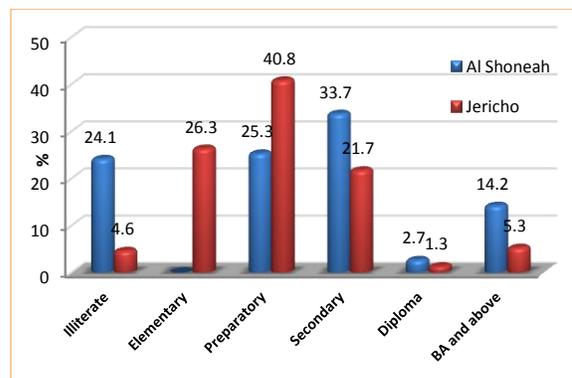
## AGRICULTURE HOLDERS

The sample results indicated that the representative holder's age group was 45-54 (29.6%) in Jericho and 30-40 (26.4%) in Al Shouneh.

In term of educational attainment, the largest group was preparatory level in Jericho

(40.8%), and Secondary level in Al Shouneh (33.7%) (figure 7).

**Figure 7: Educational Attainment of Agriculture Holders in Jericho and Al Shouneh sample**



The average family size was approximately equal in Jericho and Al Shouneh sample, 6.9 and 6.7 respectively. As for the marital status, 94.7% and 88.3% of the holders were married in Jericho and Al Shouneh (figure 8).

**Figure 8: Marital Status of Agriculture holders in Jericho and Al Shouneh sample**

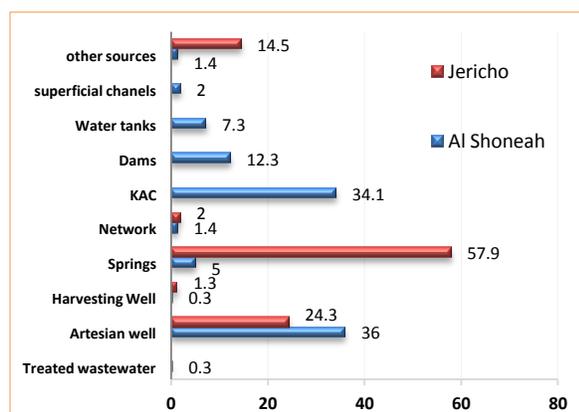


It is necessary to mention here that all of the sample holders in Jericho were Palestinian from Jericho and Al Aghwar Governorate, while in Al Shouneh Sample 84% were Jordanian and 16% from other nationalities such as Pakistani and Egyptian. Also, about 25% of Al Shouneh sample holders were from outside Al Shouneh area.

## WATER RESOURCES

The results indicated clearly that the main source of irrigation water was water springs (57.9%) in Jericho, while in Al Shouneh there were two main resources the Artesian wells (36%) and King Husain Channel (KAC) (34.1%) (figure 9).

**Figure 9: Main sources of irrigation water in Jericho and Al Shouneh sample**



As for available water for irrigation, 51% of the holders in Al Shouneh indicated that it was below 10m<sup>3</sup>/hour, while in Jericho 25.7% indicated that it was between 10-20 m<sup>3</sup>/hour. The average water price per cubic meter was 1.14JD in Jericho and only 9.9JD.

When the holders were asked about whatever water quantities are sufficient for irrigation, 59% and 40.8% in Al Shouneh and Jericho respectively indicated that I is enough.

## WATER AND SOIL QUALITY

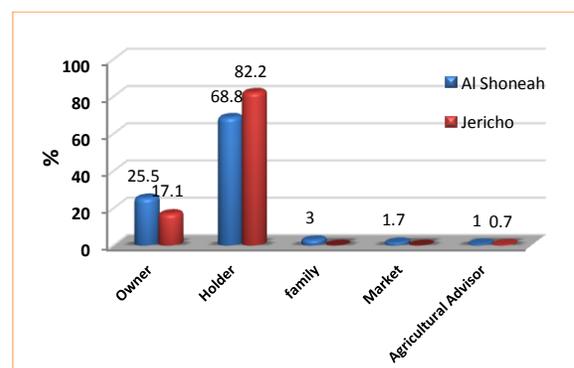
The sample results showed that 69.1% of Jericho and 85% of Al Shouneh sample agriculture holdings the water quality was suitable for irrigation. Regarding soil quality, 96.1% in Jericho and 12% in Al Shouneh consider the soil suitable for farming. On the other hand about 90% Jericho and Al

Shouneh sample never carried out a soil analysis test. Moreover 82% never carried out a water quality analysis. The results here conformed to the information retrieved through the focus group meetings in Jericho and Al Shouneh, where the stakeholders stated that they do not analysis for water or soil, due to the lack of laboratories to analyze soil and water.

## PRODUCTION MANAGEMENT

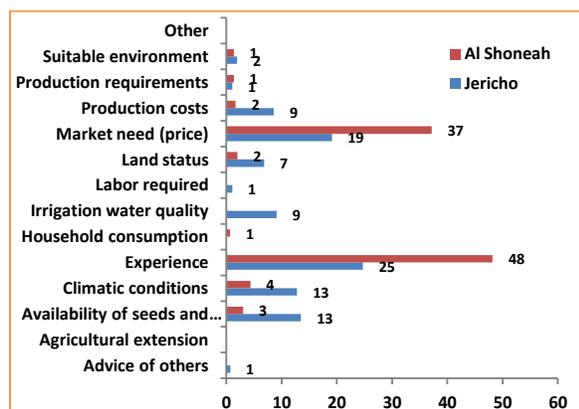
The main decision maker in selecting the crop type to be planted in the agriculture holding was the holder himself in both areas Jericho (82.2%) and in Al Shouneh (69%) (figure 10).

**Figure 10: Main decision maker in selecting the types of crops in the agriculture holdings sample**



Most of the holders in the sample used their experience in deciding crop types; 24.7% and 48% in Jericho and AL Shouneh respectively (figure 11).

Figure 11: Reasons and influencers in crop type selection.



Many holders in Jericho and Al Shouneah faced problems in marketing their production; 86.2% and 51% in Jericho and Al Shouneah. The main problems were lack of external and internal marketing channels, and high mediator commissions in Jericho and Al Shouneah. In addition to closing of the Syrian borders for Al Shouneah products. Most of the holders in Jericho and Al Shouneah 99.4% and 87% distributed their products to the local markets, and none of the holders surveyed export their products. The results showed that 59.2% of the holders in Jericho and 70% in Al Shouneah indicated that farming contributes between 80-100% of their annual income.

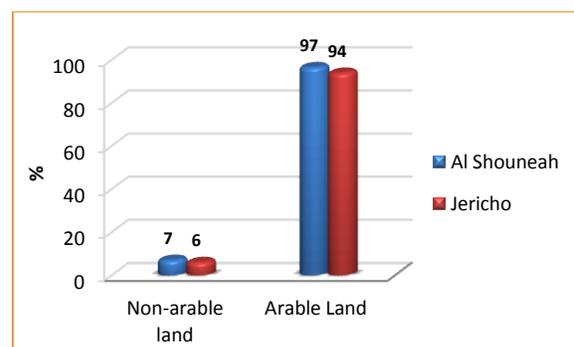
## AGRICULTURE LABOR FORCE

The results indicated that all the paid workers by sex and type (permanent, temporary and random) in Jericho Sample were Palestinian, while in Al Shouneah there were Jordanian and non-Jordanian. Annex 1 indicated the different between Jericho and Al Shouneah Sample regarding to type of labor force, number of working days and average yearly income.

## LAND USE

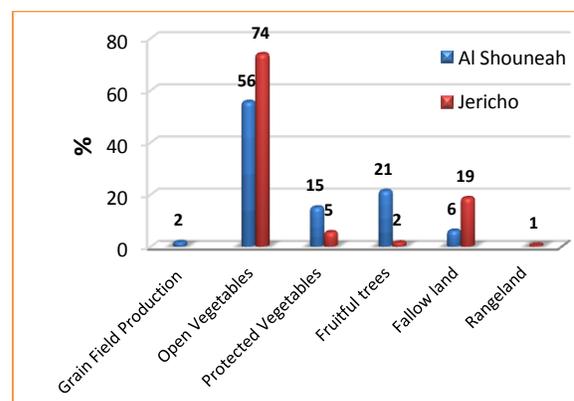
Arable land made up 93% of both Jericho and Al Shouneah total area (figure 12).

Figure 12: Distribution of total area in Jericho and Al Shouneah Sample



Cultivated land was distributed as follows: 74% in Jericho and 56% in Al Shouneah cultivated land area of open vegetables (figure 13). It is necessary to mention here that 19% Jericho sample cultivated area was under temporarily fallow lands due to the availability of irrigation water.

Figure 13: Distribution of area according to land use in Jericho and Al Shouneah sample



## CROPS

### 1. Vegetables Crops

All the area cultivated with vegetables crops in Jericho and Al Shouneh sample were irrigated, and the most predominant irrigation method is open field drop irrigation. The main vegetables crops were cultivated in Jericho sample are the following: Jaw's Mellow, Maize, Tomato, Eggplant, Cauliflower and Squash. While in Al Shouneh sample the most cultivated were: Squash, Eggplant, Tomato, Cucumber, Sweet Pepper, Jaw's Mellow and Lettuce. In average more than 99% of the production in Jericho and 85% in Al Shouneh sample were distributed to local markets. 1.5% of the production in Al Shouneh sample was exported (especially squash and cucumber); while in Jericho there were no export channels for the production.

### 2. Field Crops:

In Jericho due to the lack of irrigation water and rainfall, there was no area cultivated with field crops in the sample, while in Al Shouneh there were two main field crops barley and maize (7.3% of the total area surveyed). The area cultivated with barley is rain-fed, while area cultivated with maize was irrigated area.

### 3. Fruit Trees:

Holders cultivated five main fruit trees in Jericho and Al Shouneh sample; these are Banana, Date, Lemon, Orange and Bomaly. In addition to Grape in Jericho, and Olive trees in Al Shouneh. Banana trees represented the most area cultivated with fruit trees in the sample. All areas cultivated with fruit trees are irrigated areas.

## ANIMAL PRODUCTION

11.2% of the sample in Jericho raised Livestock of which 41.2% owned sheep, 29.5% owned goats and 29.4% owned both. In Al Shouneh sample none of the holders raised livestock. In addition to livestock, 8% of the sample in Al Shouneh raised animals, which ranged between poultry and fish, and 1.3% in Jericho sample raised one poultry farm, and 50 beehives in Jericho.

23.5% of those who owned livestock in Jericho sample and 15% in Al Shouneh sample are affected with animal ownership when deciding their production crop. Many animal owners in Al Shouneh (66%) and Jericho (82.4%) sample stated that there was no positive or negative effect of animal production on agriculture production.

## CLIMATE CHANGE

The sample results showed that 96.7% in Jericho and 52% in Al Shouneh holders have noticed significant changes in weather conditions in the past 10 years. 26% of them in Al Shouneh and 96.1% in Jericho indicated that there were negative impacts of weather conditions on the agriculture sector.

As for changes in the agriculture season during the last 10 years, 90.8% of Jericho and only 12% of Al Shouneh sample indicated that there was a change in the agriculture season, the changes in Jericho and Al Auja was a result of Israeli occupation over the main water springs, which led to drought condition in the area.

As for the impact of increased temperature on the agriculture production, 97.4% in Jericho

and 37% sample holders indicated that the increase of temperature had negative impacts.

In general 92.8% of Jericho and only 15.3% of Al Shouneh sample holders indicated that land available for agriculture production have decreased during the last 10 years. 94.7% of them in Jericho and 15% in Al Shouneh noticed changes in land uses during the last 10 years.

Accordingly, the key indicators for farmers and agriculture planners in the Jordan valley can be as follows:

- The main source of agriculture holdings funding was by intermediates in Jericho while in Al Shouneh Al-Janoubeyeh was by the holders. This led to high intermediates commission, this in addition that many holders need to buy their production materials from the intermediates themselves. So, it is necessary to mention here that there is a lack of agriculture lending institutions in Jordan and Palestine; this will led the holders to depend on both their personal sources and intermediates to fund their agriculture holdings.
- The average water price was so high in Jericho and Al Auja compared to its price in AL Shouneh Al-Janoubeyeh, this means that the total cost of production in Jericho is higher than Al Shouneh Al-Janoubeyeh.
- The results showed that in Al Shouneh Al-Janoubeyeh and Jericho there is a lack of laboratories to analyze soil and water, and many holders never carried out soil and water analysis test. This in general will

lead to decrease in the soil fertility with time.

- Holders in Jericho and Al Shouneh Al-Janoubeyeh faced problems in marketing their production, and the main problems were lack of external and internal marketing channels and high mediator commission in Jericho and Al Shouneh Al-Janoubeyeh. It is necessary to mention here that none of the surveyed holders export their products.
- The sample results in Jericho and Al-‘Auja showed that there are negative impacts of climate change in the Jordan Valley; large amounts of land in the Jordan Valley are under drought and desertification circumstances.
- The population growth and dividing the land by inheritance leads to the decline of cropland and increase of urban areas.

## Annex 1:

Type of Worker		Indicator	Jericho		Al Shouneh	
			Palestinian	Jordanian	non-Jordanian	
Paid Workers	Male Permanent	Average Daily Working Hours	7.4	8.2	8.5	
		Average number of working days	272	335	319	
		Income	14	13.3	11.5	
	Female Permanent	Average Daily Working Hours	6.5	7	7.8	
		Average number of working days	266.7	320	312	
		Income	12.5	7.4	7.1	
	Male temporary	Average Daily Working Hours	6.4	7.7	7.8	
		Average number of working days	200.4	160	189	
		Income	11.5	18.9	14.8	
	Female temporary	Average Daily Working Hours	-	8	7.7	
		Average number of working days	-	131	148	
		Income	-	12.9	10.2	
	Male Random	Average Daily Working Hours	4	7	7.5	
		Average number of working days	79	50	52	
		Income	10.4	25	20.3	
	Female Random	Average Daily Working Hours	-	7.8	7.7	
		Average number of working days	-	61	60	
		Income	-	24.4	17.6	
Unpaid Workers	Male	Average Daily Working Hours	15.8	5.6	6.6	
		Average number of working days	265.6	272	297	
	Female	Average Daily Working Hours	9.7	6.7	8.4	
		Average number of working days	269.2	268	326	