

# Irrigation Scheduling Survey

West Bekaa

July 2005

# Survey Objectives

- Get to know the farmers of the region,
- Introduce Khirbit Kanafar Center and their activities,
- Assess the farmers' practices and water sources,
- Highlight on the farmers major concerns

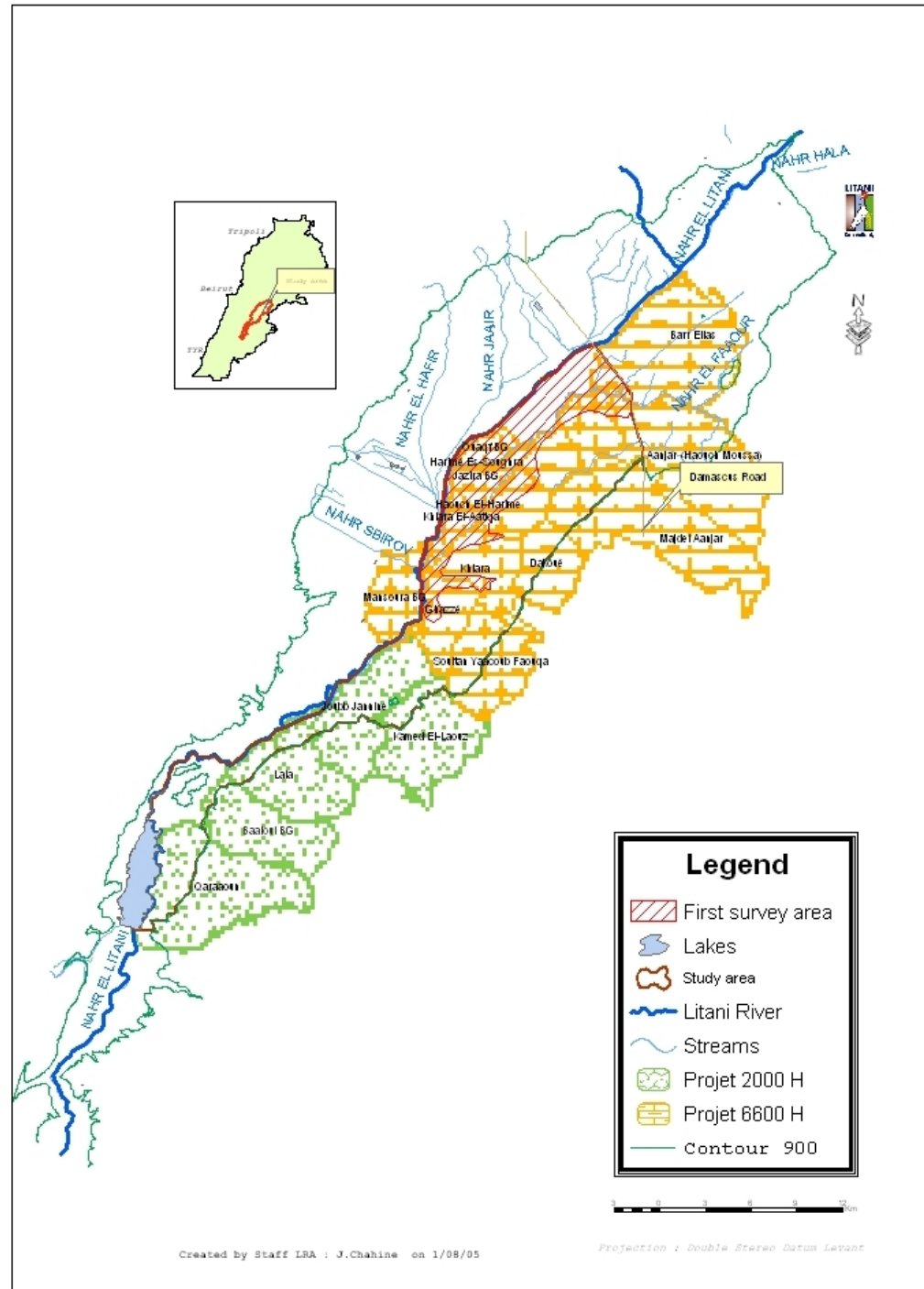
# Data Collection

- The field work of the survey started 1st of July 2005 and ended on 31st of August.
- Four extension agents: Jean , Yasser, Ali and Mariam were divided in groups worked on 20 villages located between Quaraoun lake and Damascus road (*map 1: survey area*)

Survey area  
78,412 dn

20 villages  
visited

284 farmers  
interviewed



# Field Work

## Advantages:

- Good contacts with municipalities and mayors,
- The Extension agents became more familiar with on field activities.

## Limitations:

- Problems in finding the farmers (large projects, home visits...),
- Difficulties in Communication,
- Exact delimitation of the plots on field.

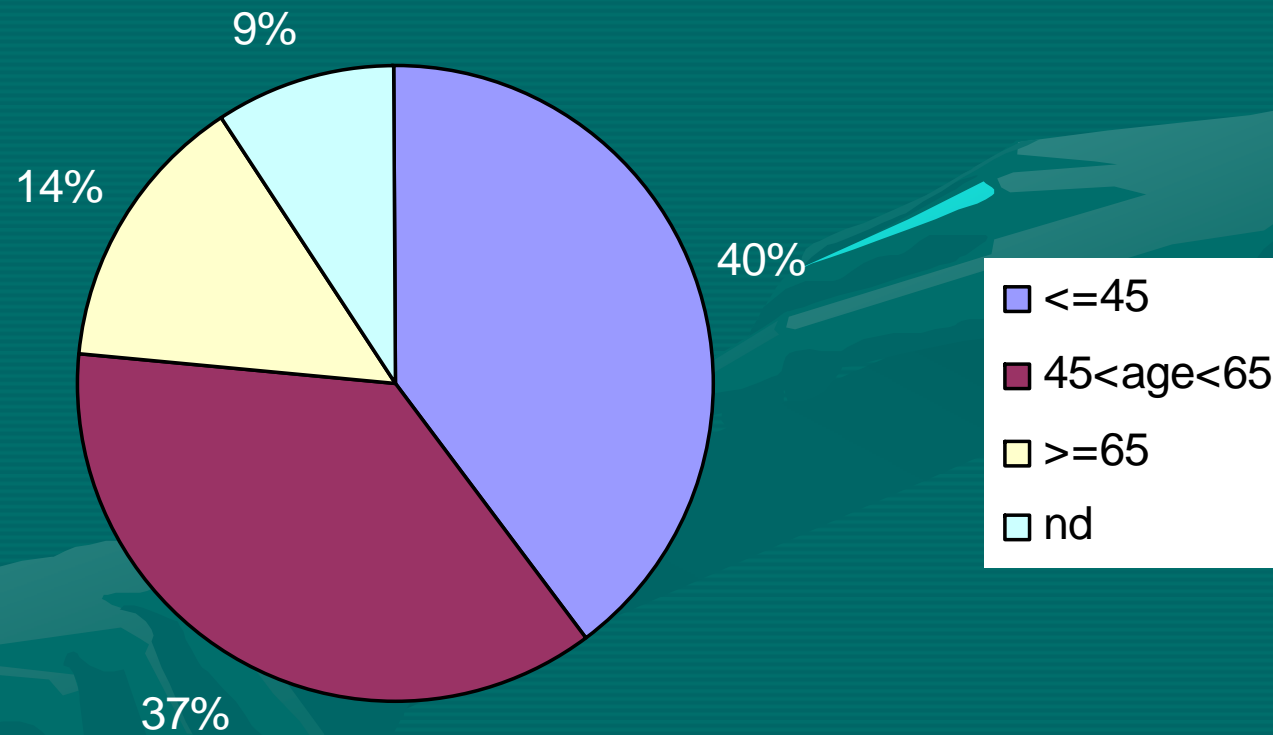




# Primary results

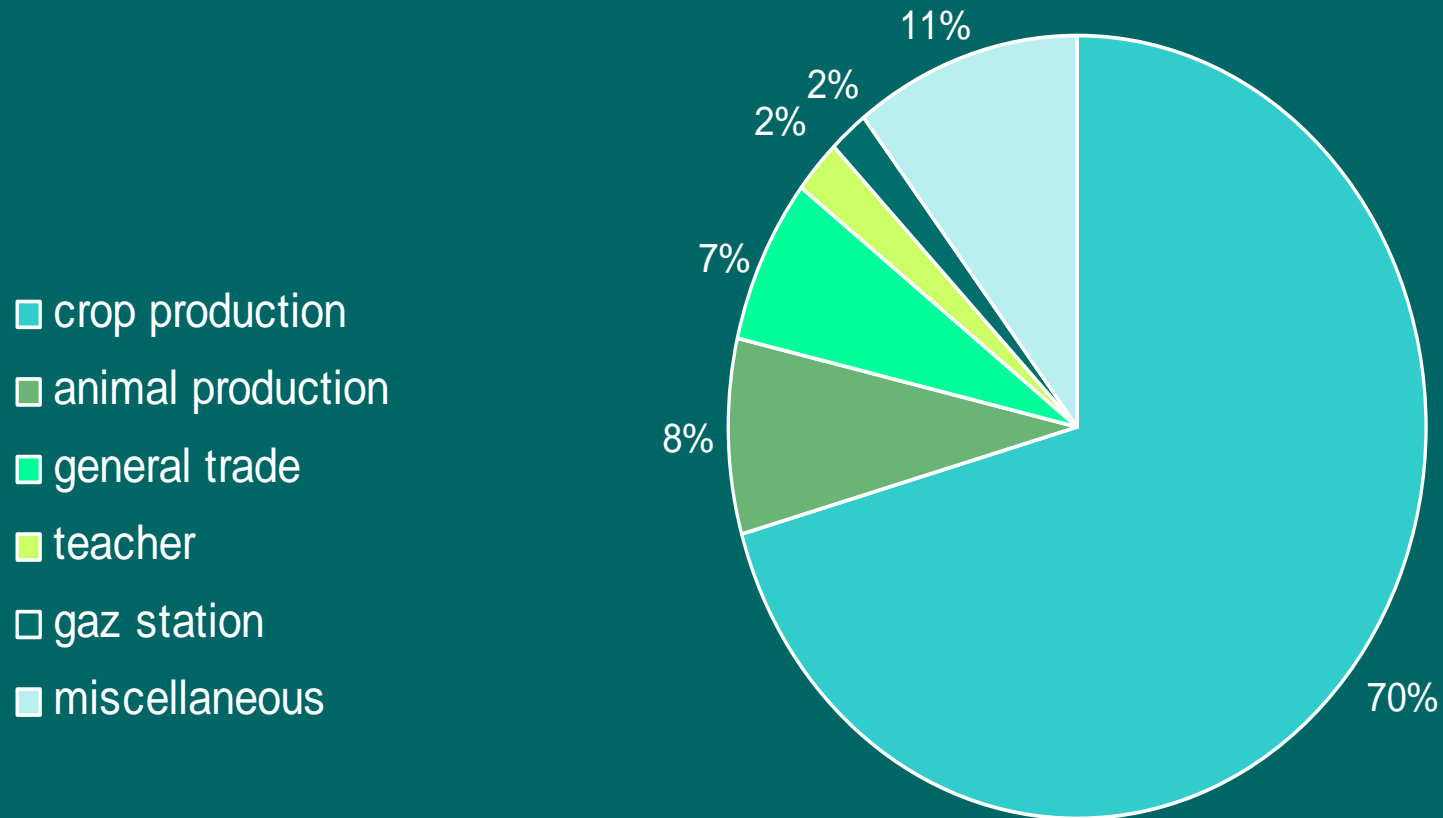
- Generalities on farmers  
(age, occupation)
- Farm description
- Irrigation Scheduling

# Age distribution of the surveyed farmers

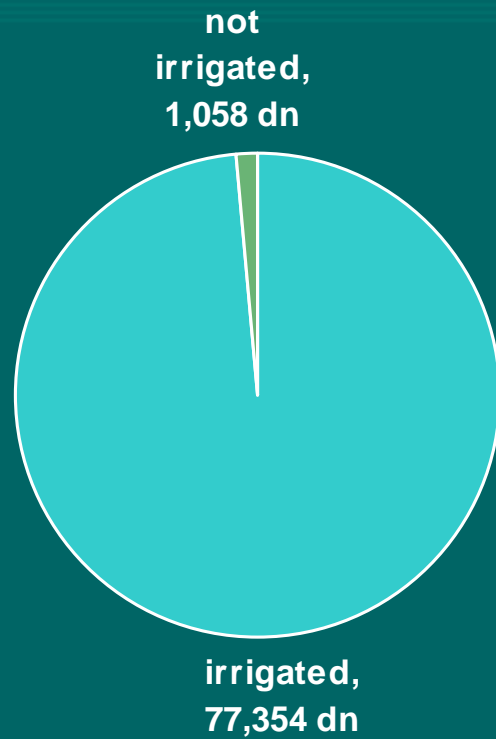




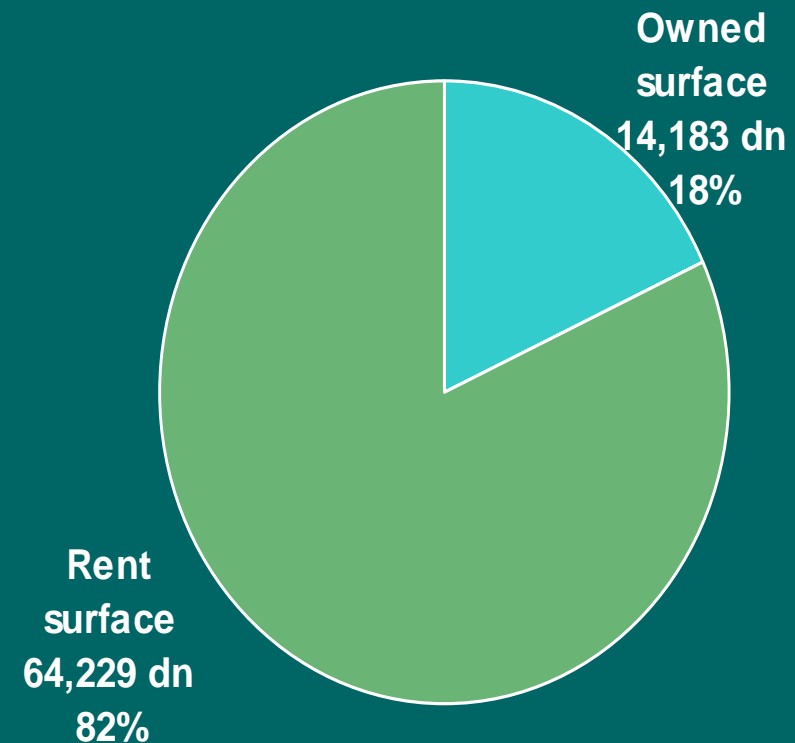
# Occupation of surveyed land users



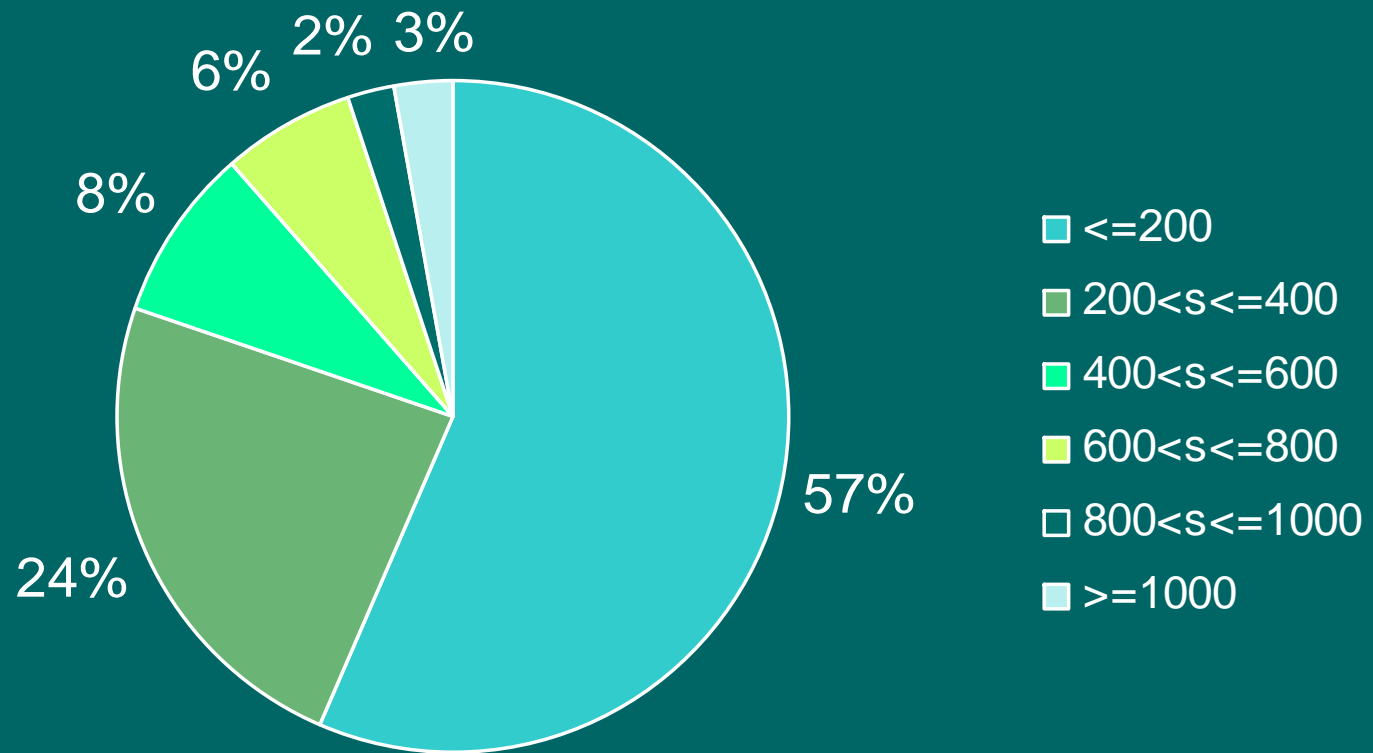
## Irrigated vs. Not-Irrigated Plots



## Owned vs. Rent Plots



# Farm size distribution (dounoum)



# Weighted Average Renting Cost LBP/dn

Summer Season	Winter Season
107,740	59,263

# Primary Water Source

Primary water source	# farms	% farms	surface dn	Weighted average %
Public well	43	15	16,840	21
Private well	89	31	29,185	37
Litani river private pumping	20	7	6,090	8
Litani river public pumping	2	1	1,100	1
Ghzayel river private pumping	79	28	18,002	23
Ghzayel river public pumping	3	1	965	1
Faregh river private pumping	1	0	2	0
Faregh river public pumping	0	0	0	0
Litani river subscriber	24	8	3,702	5
Anjar source	8	3	1,157	1
No irrigation	14	5	1,058	1
water ponds	1	0	311	0
<b>TOTAL OF FARMERS VISITED</b>	<b>284</b>	<b>100</b>	<b>78,412</b>	<b>100</b>

# Primary Water Source

Primary water source	# farms	% farms	surface dn	weighted average %
Artesian wells	132	46	46,025	59
Ghzayel river pumping	79	28	18,967	24
Litani river subscriber	24	8	3,702	5
Litani river pumping	20	7	7,190	9
other	15	5	1,470	2
No irrigation	14	5	1,058	1
<b>TOTAL OF FARMERS VISITED</b>	<b>284</b>	<b>100</b>	<b>78,412</b>	<b>100</b>

# Secondary Water Source

~ 28% of farms visited

Secondary water source	# farms	% farms	surface dn	weighted average %
Public well	0	0	0	0
Private well	0	0	0	0
Litani river private pumping	18	23	6,512	25
Litani river public pumping	7	9	1,570	6
Ghzayel river private pumping	24	31	10,328	40
Ghzayel river public pumping	0	0	0	0
Faregh river private pumping	1	1	143	1
Faregh river public pumping	0	0	0	0
Litani river subscriber	27	35	6,423	25
Anjar source	1	1	590	2
No irrigation	0	0	0	0
water ponds	0	0	0	0
<b>Total # farms using secondary water source</b>	<b>78</b>	<b>100</b>	<b>25,566</b>	<b>100</b>

# Secondary Water Source

Secondary water source	# farms	% farms	surface dn	weighted average %
Artesian wells	0	0	0	0
Ghzayel river pumping	24	31	10,328	40
Litani river subscriber	27	35	6,423	25
Litani river pumping	25	32	8,082	32
other	2	3	733	3
No irrigation	0	0	0	0
<b>TOTAL OF FARMERS VISITED</b>	<b>78</b>	<b>100</b>	<b>25,566</b>	<b>100</b>



# Filtration Techniques

Filtration	# farms	% farms
Mesh	28	10
Sand	3	1
Decantation basin	2	1
Disc	1	0
Mixed ( <i>Sand, Mesh</i> )	1	0
No filtration	249	88
<b>TOTAL OF FARMS VISITED</b>	<b>284</b>	<b>100</b>

# Soil Analysis

Soil Analysis	# farms	% farms
Yes <i>(but not considered in fertilisation programs)</i>	61	21
No	216	76
No data	7	2
<b>TOTAL OF FARMS VISITED</b>	<b>284</b>	<b>100</b>

# Major Problems

- Drainage channels
- Wind interference *sprinkler*
- Water salinisation
- Clogging
- Excess use of water
- Water leakage
- Weeds: *Orobanche*
- Marketing strategies



# Agricultural Extension (?)

Yes ( <i>private companies</i> )	185
No	95
No Data	4
<b>Total # farms</b>	<b>284</b>













# Survey Output

- ✓ Extension agents were trained on how to organize work (making contacts with municipalities, mayors, finding key farmers, etc...)
- ✓ They became more familiar with on field activities,
- ✓ Preparation of the farmers data base for the center
- ✓ Preparation of the training courses
- ✓ Starting point of Extension activities







# Recommendations

- The available cadastral maps *to be* farmer-customized by surveyors on the ground to facilitate farmers recognition of their lands on papers.
- Training extension agents on good communication
- Continuous technical updating of the extension agents







