

Annex 5.2

Baseline Survey for Rehabilitation of Wells

Well Profile: 18-18/016

A. General Information

Well name	Mustafa Abu Khayzaran		
Well number	18-18/016		
Location	Ras Al –Far’ah, Nablus		
Coordinates	E182370/ N188890		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Dyab Ahmad Mustafa Abu Khayzaran	70	Owner
	Ahmad Dyab Ahmad Abu Khayzaran	37	Member of Village Council
	Sameeh Yousef Salem Abu Khayzaran	54	Owner
	Bassam Bashir Abu Khayzaran	55	Farmer

B. Historical Background

Owners	Name	Telephone	Owned land (Donum)	Ownership
	Ameen Muhamad Abu Khayzaran	NA	150	34%
	Mustafa Salem Abu Khayzaran	NA	80	8%
	Hasan Salem Abu Khayzaran	NA	80	8%
	Yousef Salem Abu Khayzaran	NA	80	8%
	Naji Salem Abu Khayzaran	NA	80	8%
	Bashir Ahmad Abu Khayzaran	NA	150	16.5%
	Dyab Ahmad Abu Khayzaran	NA	150	16.5%
Drilling year	1963			
Drilling cost	20,000 JD			
Use	Agriculture Only			
Area of irrigable land	820 Donum			
Area of irrigated land	800 Donum			
Beneficiaries	<ul style="list-style-type: none"> Well owner: 7 household Other farmers: 8 household 			
Pump fuel	Diesel			
Water selling unit	Pumping hour			
Water cost (per unit)	5 JD/hour			

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership
	Dyab Ahmad Mustafa Abu Khayzaran	Framer	250	16.5%
	Bassam Basheer Abu Khayzaran	Framer	180	16%
	Shareef Mustafa Abu Khayzaran	Framer	40	2%
	Mustafa Naser Abu Khayzaran	Student	20	2%
	Ramzi Naser Abu Khayzaran	Student	20	2%
	Salem Mustafa Abu Khayzaran	Doctor	40	2%
	Mushrif Mustafa Abu Khayzaran	Farmer	40	2%
	Mahmoud Hasan Abu Khayzaran	Farmer	30	2%
	Ibraheem Hasan Abu Khayzaran	Farmer	30	2%
	Hamdan Hasan Abu Khayzaran	Farmer	30	2%
	Tawfeeq Hasan Abu Khayzaran	Farmer	30	2%

	Faysal Hasan Abu Khayzaran	Farmer	30	2%														
	Sameeh Yousef Abu Khayzaran	Farmer	40	2%														
	Wajeeh Yousef Abu Khayzaran	Farmer	40	2%														
	Sameer Yousef Abu Khayzaran	Farmer	40	2%														
	Tha'er Yousef Abu Khayzaran	Farmer	40	2%														
	Adel Naji Abu Khayzaran	Farmer	120	4%														
	Khaled Amin Abu Khayzaran	Farmer	120	33%														
Use	Agricultural and Domestic (the well provide the household around the well during summer months)																	
Well efficiency	Fair (evaluated by the interviewed persons)																	
Area of irrigable land	1200 Donum (owned by the well owner)																	
Area of irrigated land	1200 Dunums owned by the well owners and cultivated by the tenants																	
Pump fuel	Electricity																	
Water selling unit	Pumping hour																	
water cost	<ul style="list-style-type: none"> • Agricultural purposes: 70 NIS/Hr • Domestic purposes: Free 																	
Beneficiaries	<ul style="list-style-type: none"> • 60 households (land and well owners) benefit from the tenant of land and water selling • 400 households (workers, tenants) 																	
Working forces	<ul style="list-style-type: none"> • 30 supervisors (men) (the owners of land and well) • 300 permanent workers • 100 household working in collecting the crop production 																	
	<p>In general:</p> <ul style="list-style-type: none"> ○ 25% are children workers ○ 30% are women workers ○ 45 are men workers 																	
Beneficiaries/Workers representation charts	<p>Beneficiaries (Households)</p> <table border="1"> <tr><th>Category</th><th>Percentage</th></tr> <tr><td>Owners</td><td>13%</td></tr> <tr><td>Workers</td><td>87%</td></tr> </table>		Category	Percentage	Owners	13%	Workers	87%	<p>Working Force Vs Gender</p> <table border="1"> <tr><th>Category</th><th>Percentage</th></tr> <tr><td>Men</td><td>45%</td></tr> <tr><td>Children</td><td>25%</td></tr> <tr><td>Women</td><td>30%</td></tr> </table>		Category	Percentage	Men	45%	Children	25%	Women	30%
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Men	45%																	
Children	25%																	
Women	30%																	
Irrigation type	<ul style="list-style-type: none"> • Drip irrigation: 600 Donum • Furrow irrigation: 600 Donum 																	
Operator	Jamal Yousef 'Aboushi (Tel:0522972916)																	
Operational Cost	<p>Operator: 1600 NIS/Month</p> <p>Fuel (Electricity): 50,000 NIS/Month</p> <p>Maintenance: 10,000 NIS/Month</p>																	
Well Management	<ul style="list-style-type: none"> • Dyab Ahmad Mustafa Abu Khayzaran, Owner • Shareef Mustafa Abu Khayzaran, Owner • Sameeh Yousef Abu Khayzaran, Owner 																	

	<ul style="list-style-type: none"> • Khaled Amin Abu Khayzaran, Owner
Maintenance	Since 1988 (change it from diesel to electricity)
Contract Diagram	<pre> graph TD A[Historical Owners: (land and well) Amin Muhamad Abu Khayzaran Mustafa, Hasan, Yousef and Naji Salem Abu Khayzaran Bashir and Dyab Ahmad Abu Khayzaran] --- B[Current Owners: (land and well) Sons and grandchildren of the historical owners] B --- C[Management: Dyab, Sharif, Sameeh and Khalid Abu Khayzaran] C --- D[Farm Supervisors (land and well owners)] D --- E[300 permanent workers] D --- F[100 household temporary workers] G[Operator: Jamal Yousef 'Aboushi] --- C </pre>

D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Potato	1000	74	960	120	Open	5	1300	300
Onion	200	91	1050	150	Open	7	900	250
Spring Season								
Onion	150	140	600	120	Open	6	900	250
Potato	400	89	720	120	Open	6	1300	300
Tomato	100	111	420	120	Open	8	600	200
Cucumber	550	140	640	100	Open	4	1800	400
Summer Season								
cauliflower	100	38	260	70	Open	3	1000	250
Green piper	40	94	540	140	Open	4	1300	300
Cucumber	250	140	720	180	Open	4	1800	400
Tomato	200	111	840	180	Open	8	600	200
Net benefit		879,500 NIS/year						

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 70% exported to Israeli Market • 10 % to local markets (Nablus). • 20% to West Bank markets (mainly Jenin) 							
	<p>Agricultural Crops Marketing</p> <p>The pie chart illustrates the distribution of agricultural crop marketing. The largest segment is Israeli Markets at 70%, followed by Jenin, Hebron, and Ramallah Markets at 20%, and Nablus Markets at 10%.</p> <table border="1"> <thead> <tr> <th>Market</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Israeli Markets</td> <td>70%</td> </tr> <tr> <td>Jenin, Hebron, Ramallah Markets</td> <td>20%</td> </tr> <tr> <td>Nablus Markets</td> <td>10%</td> </tr> </tbody> </table>	Market	Percentage	Israeli Markets	70%	Jenin, Hebron, Ramallah Markets	20%	Nablus Markets
Market	Percentage							
Israeli Markets	70%							
Jenin, Hebron, Ramallah Markets	20%							
Nablus Markets	10%							

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Ahmad Dyab Abu Khayzaran	80	0	1	0
Rabeesa' Dyab Abu Khayzaran	80	0	1	0
Siham Dyab Abu Khayzaran	80	0	1	0
AMuhamd Dyab Abu Khayzaran	80	0	1	0
Yasar Dyab Abu Khayzaran	80	0	1	0
Nida'a Dyab Abu Khayzaran	80	0	1	0
Sameeh Yousef Abu Khayzaran	80	0	1	0
Wajeeh Yousef Abu Khayzaran	80	0	1	0
Sameer Yousef Abu Khayzaran	80	0	1	0
Thaer Yousef Abu Khayzaran	80	0	1	0
Mahmoud Hasan Abu Khayzaran	50	0	1	0
Mahmoud Hasan Abu Khayzaran	50	0	1	0
Tawfeeq Hasan Abu Khayzaran	50	0	1	0
Faysal Hasan Abu Khayzaran	50	0	1	0
Ibraheem Hasan Abu Khayzaran	50	0	1	0
Mahmoud Hasan Abu Khayzaran	50	0	1	0
Hamdan Hasan Abu Khayzaran	50	0	1	0
Adel Naji Abu Khayzaran	40	0	1	0
Musheer Naji Abu Khayzaran	40	0	1	0
Bashar Naji Abu Khayzaran	40	0	1	0
Mushrif Mustafa Abu Khayzaran	30	0	1	0
Shareef Mustafa Abu Khayzaran	30	0	1	0
Khalid Amin Abu Khayzaran	30	0	1	0
Ahmad Amin Abu Khayzaran	30	0	1	0
Rashid Amin Abu Khayzaran	30	0	1	0
Basaam Basheer Abu Khayzaran	70	0	1	0
Ghasaam Basheer Abu Khayzaran	70	0	1	0
Muhamad Basheer Abu Khayzaran	70	0	1	0
Basim Basheer Abu Khayzaran	70	0	1	0
Bashar Basheer Abu Khayzaran	70	0	1	0

G. Adjacent water sources

Springs	Code	Name	Type
	AQ/030	Al Far'ah	Agriculture & Domestic
AQ/032	Al Dlaib	Agriculture	
Wells	Code	Name	Type
	18-18/001	Younes Swadi & Partners	Agriculture
	18-18/002	'Abed 'Ara'uf Faris	Agriculture
	18-18/004	Ref'at Al Faris	Agriculture
	18-18/017	Tubas Water Project	Domestic
	18-18/025A	Muhamad 'Ali 'Abedallah	Agriculture
	18-18/032	Ahmad Shanti & Partners	Agriculture
18-18/033	Sulayman Saleh	Agriculture	

H. Problems:

Management	The economical situation of the well owners and the farmers do not allow any chance for rehabilitation.
Technical	<ul style="list-style-type: none"> • Well pump is very old with low efficiency • The distribution network is very old and needs to expand • The electrical board of the well is very old and work in low efficiency

I. Needs/Wishes:

1	Replacement of the well pump and the poster station
2	Replacement of the well pipes (inside the hole)
3	Replacement of the electrical board
4	Replacement/expansion the distribution network pipes

Well Profile: 18-18/019

A. General Information

Well name	Abdul Kareem Salem		
Well number	18-18/019		
Location	Biet Hassan, Wadi Al Fara'ah, Nablus		
Coordinates	E188730/N181150		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Muhamad Saleh Abu Srour	43	Well Operator
	Imad Abdulkareem Jaser	38	Owner
	Jaser Abdulkareem Salem	42	Owner
	Ibraheem Muhamad Sulyman	32	Member of Village council

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership (%)
	Abdul Kareem Salem	132	100
Drilling year	1965		
Drilling cost	\$2000		
Use	Agriculture Only		
Area of irrigable land	132Donum		
Area of irrigated land	132 Donum		
Beneficiaries	1 household (owner family)		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	NA		

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership (%)
	Jaser Abdulkareem Salem	Engineer	22	16.6
	Amar Abdulkareem Salem	Trader	22	16.6
	Imad Abdulkareem Salem	Trader	22	16.6
	Iyad Abdulkareem Salem	Employee	22	16.6
	Abeer Abdulkareem Salem	wife house	11	8.5
	Haneen Abdulkareem Salem	wife house	11	8.5
	Serkat Abdulkareem Salem	Employeeer	11	8.5
	Omema Abdulkareem Salem	wife house	11	8.5
Use	Agricultural use			
Well efficiency	Fair (evaluated by the interviewed persons)			
Area of irrigable land	132 Donum			
Area of irrigated land	132 Dunums			
Pump fuel	Diesel			
Water selling unit	Pumping hour			
Water cost (per unit)	70 NIS/Hr			
Beneficiaries	<ul style="list-style-type: none"> • 8 households (well and land owners) • 5 households (workers) 			

Working forces	<ul style="list-style-type: none"> Well and land owners are the only workers (permanent) 5 Workers (labors) during harvest season (temporary)
Irrigation type	Drip irrigation
Operator	Muhamad Saleh Abu Srou
Operational Cost	<ul style="list-style-type: none"> Management cost: 2000 NIS/Month Operator: 8500 NIS/Month Fuel (Desiel): 2,000 NIS/Month Maintenance: 15,000 NIS/Month
Well Management	<ul style="list-style-type: none"> Imad Abdulkareem Salem Jaser Abdulkareem Salem Muhamad Saleh Abu Srou
Maintenance	No Maintenance since a long time
Contract Diagram	<pre> graph TD A[Historical Owner: (land and well) Abdul Kareem Salem] --> B[Current Owners: (land and well) Sons of Abdul Kareem Salem] B --> C[Management: Imad Abdul Kareem Salem Jaser Abdul Kareem Salem Muhamad Saleh Abu Srou] C --> D[Operator: Muhamad Saleh Abu Srou] C --> E[Farm Supervisors (land and well owners)] E --> F[temporary workers] </pre>

D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Citrus	132	439	521	Long life	open	2.5	1000	200
Net benefit	26,400 NIS/Year							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> 10% Local Market (inside the community) 90 % to Nablus Markets
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F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)	No. of Female workers	No. of male workers	No. of children workers
Mohammad Saleh abu zror	132	Land and well supervisors		
Imad Abdulkareem salem				
Jaser Abdulkareem Salem				

G. Adjacent water sources

Springs	Code	Name	Type
	AQ/022	Shebli	Agriculture/Domestic
AQ/023	Ya'qub	Agriculture	
Wells	Code	Name	Type
	18-18/013	Abedallah Abed Al Hadi	Agriculture
	18-18/019A	'Adel & Sa'di Shaka'	Agriculture
	18-18/026	Fayez Ahmad Issa	Agriculture
	18-18/036	Khaleel Abed Al Hadi	Agriculture
18-18/039	Ibraheem Hamdan	Agriculture	

H. Problems:

Management	None
Technical	<ul style="list-style-type: none">• Well pump is very old with low efficiency (1)• The distribution network is very old and needs to expand• The generator is very old.

(1) This problem contradict the above mentioned information about the pump, in any case, these problems are defined by the interviewed persons and needs to be verified.

I. Needs/Wishes:

1	Replacement of the well pump with 90 m ³ /hr pump capacity (2)
2	Replacement/expansion the distribution network pipes 6" and 4".
3	Standby diesel generator

(2) This wish contradict the above mentioned information about the pump, in any case, these problems are defined by the interviewed persons and needs to be verified.

Well Profile: 18-18/025A

A. General Information

Well name	Mohammad Ali Abdullah		
Well number	18-18/025A		
Location	Ras Al –Far’ah , Nablus		
Coordinates	E181650/N189540		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Mohammad Fakhry Mohammad Ali	37	Owner
	Firas Waleed Mostafa	24	Owner
	Mufaq Fakhry Mohammad Ali	26	Owner

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership (%)
	Nimer Mohammad Ali Daraghma	150	33
	Hassan Mohammd Alin Draghma	100	16.5
	Mostafa Mohammad Ali Daraghma	80	16.5
	Abdullah Mohammad Ali Daraghma	50	8.5
	Fakhry Mohammad Ali Daraghma	200	25
Drilling year	NA		
Drilling cost	\$6000		
Use	Agriculture Only		
Area of irrigable land	580 Donum		
Area of irrigated land	550 Donum		
Beneficiaries	5 households (well owners)		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	Water used by the owners (cost of fuel and maintenance)		

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership (%)
	Fayyz Nimer Mohammad Ali	farmer	50	3
	Salah nimer Mohammad Ali	farmer	40	3
	Zyed, Abdulsallam, Jamal, Said, Fawaz, Sami, Sayel & Samer Nimer Mohammad Ali	farmers	250	27
	Samer, Hakeem, Firas & Mostafa (Mostafa sons)	farmers	350	16.5
	Hasan Mohammad Ali	farmer	200	16.5
	Ghalib, Nasr, Raed & Mohammad Abdulla Mohammad Ali	farmers	150	8.5
	Fakhry Mohammad Ali	farmer	400	25
Use	Agricultural and Domestic			
Well Efficiency	Fair (evaluated by the interviewed persons)			
Area of irrigable land	1900 Donums			
Area of irrigated land	<ul style="list-style-type: none"> 1200 Donums (cultivated by the well owners) 200 Donums (cultivated by the tenants) 			

Pump fuel	Electricity/network																	
Water selling unit	Pumping hour																	
Water cost (per unit)	<ul style="list-style-type: none"> • Agricultural: 120 NIS/Hr • Domestic: Free 																	
Beneficiaries	<ul style="list-style-type: none"> • 35 households (well and land owners) • 300 households (land tenants) • 335 households (workers) 																	
Working forces	<ul style="list-style-type: none"> • 66.4% men workers (~91) • 24.8% women workers (~34) • 8.8% children workers (~12) 																	
Beneficiaries/Workers representation charts	<p>Beneficiaries (Households)</p> <table border="1"> <tr><th>Category</th><th>Percentage</th></tr> <tr><td>Workers</td><td>50%</td></tr> <tr><td>Land Tenants</td><td>45%</td></tr> <tr><td>Well & Land Owners</td><td>5%</td></tr> </table>	Category	Percentage	Workers	50%	Land Tenants	45%	Well & Land Owners	5%	<p>Working Force Vs Gender</p> <table border="1"> <tr><th>Category</th><th>Percentage</th></tr> <tr><td>Men</td><td>66%</td></tr> <tr><td>Women</td><td>25%</td></tr> <tr><td>Children</td><td>9%</td></tr> </table>	Category	Percentage	Men	66%	Women	25%	Children	9%
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Category	Percentage																	
Men	66%																	
Women	25%																	
Children	9%																	
Irrigation type	<ul style="list-style-type: none"> • Drip irrigation: 700 Donums • Furrow irrigation: 700 Donums 																	
Operator	Wisam Fathy Horany																	
Operational Cost	Operator: 2000 NIS/Month Fuel (Electricity): 50,000 NIS/Month Maintenance: 15,000 NIS/Month																	
Well Management	<ul style="list-style-type: none"> • Muafak Fakhry Mohammad Ali • Salah Nimer Mohammad Ali • Naser Mustafa Mohammad Ali • Nasr Abdallah Mohammad Ali • Hasan Mohammad Ali 																	
Maintenance	No Maintenance since a long time																	
Contract Diagram	<p>Contract Diagram</p> <ul style="list-style-type: none"> Historical Owners: (land and well) Nimer, Hassan, Mostafa, Abdullah and Fakhry Mohammad Ali Daraghma Current Owners: (land and well) Sons of the historical owners Management: Muafak Fakhry Mohammad Ali Salah Nimer Mohammad Ali Naser Mustafa Mohammad Ali Nasr Abdallah Mohammad Ali Hasan Mohammad Ali Operator: Wisam Fathy Horany Cultivated lands: 1400 donums (owned by the well owners) 1200 Cultivated and supervised by the land and well owners 200 donums cultivated by tenants 																	

D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Potato	1000	120	840	120	open	3.5	1000	250
Onion	200	240	840	120	open	4.5	800	200
Cauliflower	100	117	740	140	open	2.5	600	150
Cabbage	100	137	740	140	open	3	700	150
Spring Season								
Cucumber	1000	200	1750	150	open	3	1200	250
Tomato	200	240	1920	180	open	5	900	200
Eggplants	100	189	1680	180	open	4	700	150
Pepper	50	160	1560	170	open	3	600	150
Beans	50	129	1100	140	open	2.5	800	180
Summer Season								
Cucumber	800	186	1840	140	open	2.5	1200	250
Tomato	150	227	2070	170	open	4	900	200
Eggplants	50	189	1850	170	open	3.5	700	150
Net benefit	879,000 NIS/yr							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 50% exported to Israeli Market • 14% to Jenin Markets • 28% to Nablus Markets • 7% to Ramallah Markets • 1% to Hebron Markets 												
	<p style="text-align: center;">Agricultural Crops Marketing</p> <table border="1"> <caption>Agricultural Crops Marketing Data</caption> <thead> <tr> <th>Market</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Israeli Markets</td> <td>50%</td> </tr> <tr> <td>Nablus Markets</td> <td>28%</td> </tr> <tr> <td>Jenin Markets</td> <td>14%</td> </tr> <tr> <td>Ramallah Markets</td> <td>7%</td> </tr> <tr> <td>Hebron Markets</td> <td>1%</td> </tr> </tbody> </table>	Market	Percentage	Israeli Markets	50%	Nablus Markets	28%	Jenin Markets	14%	Ramallah Markets	7%	Hebron Markets	1%
Market	Percentage												
Israeli Markets	50%												
Nablus Markets	28%												
Jenin Markets	14%												
Ramallah Markets	7%												
Hebron Markets	1%												

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Sa'eed Mohammad Husen Maslamany	50	5	10	1
Anwar Sameeh Daraghma	20	3	5	1
Jamal Najy Samara	8	2	2	0
Mufeed Najy Samara	6	2	3	0
Ghazy Sa'eed Awwad	6	2	4	0
Mustafa Sa'eed Awwad	6	0	6	1
Assad Sa'eed Awwad	4	2	2	1
Jameel Mohammad Subhy Asneneh	12	2	4	0
Nsh't Shareef Awwad	8	2	3	2
Easer Hasen Maslamany	10	2	5	1
S'eed Asad Awwad	4	0	3	0
Jawad Mustafa Daraghma	12	3	6	0
Easer Asa'sa	10	4	3	1
Ayyd Najy Samara	4	2	2	1
Mustafa Khalied Mohammad Ali	30	0	4	0
Fawwaz Ez Mohammad Ali	20	0	3	0
Zyed Ez Mohammad Ali	20	0	3	1
Abdulsalam Ez Mohammad Ali	22	0	5	2
Faez Ez Mohammad Ali	24	0	2	0
Same Ez Mohammad Ali	15	0	3	0
Nasr Abdullah Mohammad Ali	55	3	4	0
Mohammad Abdullah Mohammad Ali	15	0	2	0
Mohannad fakhry Mohammad Ali	70	0	4	0
Hasan Mohammad Ali Abdulrazzaq	50	0	1	0
Abdulhakeem Mostafa Abdulrazzaq	40	0	1	0
Naser Mostafa Abdulrazzaq	40	0	1	0

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	None		
Wells	Code	Name	Type
	18-18/004	Ref'at Al Fares	Agricultural
	18-18/017	Tubas Water Project	Domestic
	18-18/032	Ahmad Shanti A Partners	Agricultural
	18-18/033	Sulyman Saleh	Agricultural

H. Problems:

Management	None
Technical	<ul style="list-style-type: none">• Well pump is very old with low efficiency• The distribution network is very old and needs to be expanded• The pump capacity is not enough to supply water to distant farms (due to high elevation of the farm)• Valves is very old

I. Needs/Wishes:

1	Replacement of the well pump to submersible pump
2	Replacement of the well pipes (inside the hole)
3	Replacement of the electrical board
4	Replacement/expansion the distribution network pipes
5	Purchase standby electrical generator

Well Profile: 18-18/027A

A. General Information

Well name	Ibrahem Dyab		
Well number	18-18/027A		
Location	Alaqrabaneh, Wadi Al Fara'ah, Nablus		
Coordinates	E186090/N183540		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Ali Ibrahem Ali Dyab	62	Owner
	Awad Shawkat Awad Dyab	32	Owner
	Ibrahem Mohammad Sulyman Da'as	32	Member of village council

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership (%)
	Ibrahem Ali Mohammad Dyab	20	100
Drilling year	1960		
Drilling cost	500 JD		
Use	Agriculture Only		
Area of irrigable land	100 Donum		
Area of irrigated land	20 Donum		
Beneficiaries	3 households		
Pump fuel	Diesel		
Water selling unit	Used by the owner		
Water cost (per unit)	Cost of fuel and Maintenance		

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership (%)
	Ali Ibrahem ali Thywab	Farmer	8	40
	Sons of Sa'eed Ibrahem Ali (Muhamad, Ibrahem, Artefa, Hanan, Banan, Shweka)	NA	8	40
	Husneyeh Ibrahem Ali Mohammad	wife house	4	20
Use	Agricultural use			
Well efficiency	Not working (evaluated by the interviewed persons)			
Area of irrigable land	40 Donum			
The well not working due insufficient water, In 2001 the well owners increase the well depth to 60m with total cost (21,000JD), but unfortunately no water has been founded. Nowadays, the cultivated lands are irrigated from the Al Aqrabaneeh channel.				
Pump fuel	diesel			
Well Management	The well owners			
Maintenance	2001 the well owners increase the well depth to 60m			

D. Adjacent water sources

Springs	Code	Name	Type
	AQ/026	Abu Saleh	NA

Wells	Code	Name	Type
	18-18/027	Nader Abed Al Hadi	Agricultural
	18-18/030	Qasem Abed Al Hadi	Agricultural
	18-18/031	Nader Abed Al Hadi	Agricultural
	18-18/031A	Sameerah Abed Al Hadi	Agricultural
	18-18/034	Qasem Abed Al Hadi	Agricultural
	18-18/035	Hafedah Abedallah	Agricultural

E. Problems:

Management	Lack of money to develop the well
Technical	
1	The well depth is low, water not reached
2	The irrigation distribution network needs to be expanded
3	The well equipments is very old and need to be replaced

F. Needs/Wishes:

1	Increasing of the well depth
2	Replacement of the well pump and the poster station (to increase the lift capacity)
3	Construct room for the well and the operator
4	Replacement/expansion the distribution network
5	Electrical generator to operate the pump

Well Profile: 18-18/036

A. General Information

Well name	Khaleel Abed Al Hadi		
Well number	18-18/036		
Location	Wadi Al –Far’ah , Nablus		
Coordinates	E187600/N182550		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Mahmoud Muhamad Hamdan	52	Owner
	Ahmad Mahmoud Hamdan	22	Owner
	Ibraheem Muhamad Da’abas	32	Member of Village Council
	Tamer Muhamad Hamdan	41	Farmer

B. Historical Background

Owner/s	Khaleel Ahmad Yousef Abed Al Hadi
Drilling year	1952
Drilling cost	\$2,000
Drilling type	Old method (Hand dug)
Use	Agriculture Only
Area of irrigable land	260 Donum (owned by the well owner)
Area of irrigated land	160 Donum (owned and used by the well owner)
Beneficiaries	<ul style="list-style-type: none"> Well owner: 1 household Other farmers: 5 household
Pump fuel	Diesel
Water selling unit	NA (the well and the cropped land are owned and operated by the same person)
Water cost (per unit)	NA (Operated by the owner: cost of fuel and maintenance)

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership
	Mahmoud Muhamad Hamdan	Farmer	250	50%
	Rushdi Ramez Hangel	Farmer	250	50%
Use	Agricultural and Domestic (the well provide one school (1500 students) and 17 households)			
Well Efficiency	Fair (evaluated by the interviewed persons)			
Area of irrigable land	500 Donum (owned by the well owner)			
Pump fuel	Diesel			
Water selling unit	Pumping hour			
water cost	<ul style="list-style-type: none"> Agricultural purposes: 60 NIS/Hr Domestic purposes: Free 			
Beneficiaries	<ul style="list-style-type: none"> 10 households (land owners) benefit from the tenant of land and water selling 15 households (land tenants) 30 households (other farmers/workers) 			
Working forces	<ul style="list-style-type: none"> 49.2% are women (~31 workers) 1.6% are children (~1 workers) 			

	<ul style="list-style-type: none"> 49.2% are men (~31 workers) 	
Beneficiaries/Workers representation charts	<p>Beneficiaries (Households)</p>	
Irrigation type	<ul style="list-style-type: none"> Drip irrigation: 250 Donum Furrow irrigation: 200 Donum 	
Operator	Tamer Muhamad Hamdan	
Operational Cost	<ul style="list-style-type: none"> Management costs: 2500 NIS/Month Operator: 2000 NIS/Month Fuel (Diesel): 24,000 NIS/Month Maintenance: 1000 NIS/Month 	
Well Management	Owners	
Maintenance	Not maintained since a long time (more than five years)	
Contract Diagram		

D. Crop pattern*

	Winter Season							
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Potato	100	118	440	120	Open	1.5	1500	300
Onion	50	106	440	120	Open	6	1500	250
Cucumber	100	300	517	90	Green House	4	1500	450
Grape	30	399	421	Long Life	Open	2.5	1000	350

Citrus	170	399	483	Long Life		3.5	1000	300
Spring Season								
Onion	50	107	485	128	Open	6	1500	250
Net benefit	161,500 NIS/Yr							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 20% exported to Israeli Market • 60 % to local markets (Nablus). • 20% to West Bank markets (mainly Jenin)
	<p>Agricultural Crops Marketing</p> <p>The pie chart illustrates the distribution of agricultural crop marketing. The largest portion, 60%, is sold to Nablus Markets (represented by a green slice). The remaining 40% is split equally between Israeli Markets (20%, blue slice) and Jenin Markets (20%, red slice).</p>

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Tamer Muhamad Hamdan	150	0	1	0
Rayek Sulayman Abu Hueedeh	30	2	3	0
Murshid Abdel Al Jabar Fara' unee	25	3	3	1
Amjad Muhamad Nassar	10	2	2	0
Muhamad Sami Mustafa	20	3	3	0
'Amer Bashir Hamdan	20	3	2	0
'Emran Muhamad Abu 'Aqel	30	4	3	0
Yasin Khadier Salameh	30	4	4	0
Nimer Ahmad Hinawee	20	1	3	0
Husni Huseen Muslaeh	20	3	2	0
Khalid 'Ata Samhan	15	2	2	0
Ibraheem 'Ata Samhan	20	2	1	0
Muhamad Ramez Hunjel	50	2	2	0

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	Code	Name	Type
	AQ/025	Meskah	Agriculture
Wells	Code	Name	Type
	18-18/011	Amin & Marwan Al Masri	Agriculture
	18-18/011B	Amin & Marwan Al Masri	Agriculture
	18-18/013	Abdallah Abed Al Hadi	Agriculture
	18-18/014	Sukaynah Abed Al Hadi	Agriculture
	18-18/023	'Azmi Abdel Majeed	Agriculture

	18-18/026	Fayez Ahmad 'Iesa	Agriculture
	18-18/031	Nader Abdel Hadi	Agriculture
	18-18/031A	Samirah Abed Al Hadi	Agriculture
	18-18/036	Khaleel Abed Al Hadi	Agriculture
	18-18/039	Ibraheem Abdel Hadi	Agriculture

H. Problems:

Management	None
Technical	<ul style="list-style-type: none"> • 7m pipe had been fallen in the well hole • Large part of the casing is clogged • Piping system is damaged and needs an urgent rehabilitation • The pump and the turbine are very old and need an urgent rehabilitation

I. Needs/Wishes:

1	Solving the above mentioned problems (casing, pipes, pumps, turbine, ...)
2	Withdraw the fallen pipe from the hole,.
3	Change the diesel motors to Electrical motors.

Well Profile: 19-14/069

A. General Information

Well name	Arab Project		
Well number	19-14/069		
Location	Arab Project, Jericho		
Coordinates	E196950/N139250		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Ibraheem Da'ek	47	Well Tenant

B. Historical Background

Owners	Name	Telephone	Owned land (Donum)	Ownership (%)
	Arab Project	NA	1000	100
Drilling year	NA			
Drilling cost	50,000 \$			
Use	Agriculture Only			
Area of irrigable land	1000 Donum			
Area of irrigated land	700 Donum			
Beneficiaries	Arab Project and other 10 households (farmers and workers)			
Pump fuel	Electricity/network			
Water selling unit	Cubic meter			
Water cost (per unit)	NA			

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership (%)
	Arab Project (rented to Ibraheem Da'ek)	NA	1000	100
	This well is replacement of well No. 19-13/069, which was closed since 20 years ago due to well collapse.			
Use	Agricultural use			
Well Efficiency	Good (evaluated by the tenant)			
Area of irrigable land	1000 Donums			
Area of irrigated land	<ul style="list-style-type: none"> • 500 Donums (Owned by the Arab Project and rented to Ibraheem Da'ek) • 200 Donums (cultivated by other farmers) 			
Pump fuel	Electricity/Network			
Water selling unit	Cubic meter			
Water cost (Per Unit)	NA			
Beneficiaries	15 households			
Working forces	15 households In general: 25-50% are children workers 25-50% are women workers			
Irrigation type	Mostly drip irrigation			
Operator	Ibrahem Hasan Da'bq			
Operational Cost	<ul style="list-style-type: none"> • Management cost: 1500 NIS/Month • Operator: 2500 NIS/Month • Fuel (Electricity): 10,000 NIS/Month • Maintenance: 2,000 NIS/Month 			

Well Management	Arab Project and the well tenant
Maintenance	Within the last five years

D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
vegetables	285	129	1350	NA	Open	3	1500	100
Olives	15	116	900	Long life	Open	1.5	3000	300
Palms	400	82	1550	Long life	Open	1	10000	5000
Net benefit	2,033,000 NIS/Year							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 10% inside the village (Arab Project) • 10% exported to Israeli market • 10% to Jericho markets • 10% to Gaza Strip markets • 30% exported to International markets (mainly Jordan and Gulf contries) • 30% to West Bank markets 													
	<p>Agricultural Crops Marketing</p> <table border="1"> <caption>Agricultural Crops Marketing Distribution</caption> <thead> <tr> <th>Market</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>International Markets</td> <td>30%</td> </tr> <tr> <td>West Bank Markets</td> <td>30%</td> </tr> <tr> <td>Israeli Markets</td> <td>10%</td> </tr> <tr> <td>Jericho Markets</td> <td>10%</td> </tr> <tr> <td>Locally</td> <td>10%</td> </tr> <tr> <td>Gaza Markets</td> <td>10%</td> </tr> </tbody> </table>	Market	Percentage	International Markets	30%	West Bank Markets	30%	Israeli Markets	10%	Jericho Markets	10%	Locally	10%	Gaza Markets
Market	Percentage													
International Markets	30%													
West Bank Markets	30%													
Israeli Markets	10%													
Jericho Markets	10%													
Locally	10%													
Gaza Markets	10%													

F. Adjacent water sources

Springs	None		
Wells	Code	Name	Type
	19-13/015	Fahed Hishamh	Agricultural
	19-13/015A	Jawad Al Masri	Agricultural
	19-13/024	Al Wqaf Well No. 1	Agricultural
	19-13/025	Al Wqaf Well No. 2	Agricultural
	19-13/029	Ali Husaini	Agricultural
	19-13/055	Sulyman Abu Jebneh	Agricultural
	19-13/061	Jericho Cooperative	Agricultural

G. Problems:

Management	None
Technical	<ul style="list-style-type: none"> • Frequent failure of the well equipments • Lack of maintenance experience

	<ul style="list-style-type: none"> • No equipments for water chemistry analysis • Sedimentation • Noise from the well engines • Instability of electricity
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H. Needs/Wishes:

1	Replacement of the well pump and the poster station
2	Replacement of the well pipes (inside the hole)
3	Purchase water test devices
4	Purchase water filters
5	Training of workers in operation and maintenance

Well Profile: 19-14/058B**A. General Information**

Well name	Younis Abdo		
Well number	19-14/058B		
Location	Jericho		
Coordinates	E194880/N141170		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Younis Mousa Abdo	56	Well Owner
	Rushdi Rashid Saied	64	Farmer

B. Historical Background

Owner/s	Kareem Khalaf (sold it to Younes Abdo)
Drilling year	1955
Drilling cost	~\$10,000
Drilling type	Old method (Hand dug)
Use	agricultural only
Area of irrigable land	150 Donum
Area of irrigated land	150 Donum
Beneficiaries	1 household (the owner)
Pump fuel	Diesel
Water selling unit	NA (used and operated by the well owner)
Water cost	cost of fuel and maintenance

C. Current Situation

Owner/s	Younis Mousa Abdo
<p>This well is dried, the owner had several trials to rehabilitate the well. The first one was deepening the well from depth 61 meter to depth 91 meter and the trial was failed. The second trail was drilling a new well beside it with total depth 87 meter and the trail was failed too. Nowadays, the well owner irrigate his farm from Ein Al sultan Spring.</p>	

D. Adjacent water sources

Springs	Ein Al Sultan Spring		
Wells	Code	Name	Type
	19-14/009	'Iysa Sabri Khalaf	Agricultural
	19-14/010	Antoun Nazal	Agricultural
	19-14/058A	Abed Al Jawad Qawuq	Agricultural
	19-14/058B	Younis Abdo	Agricultural

E. Problems:

Management	None
Technical	The well is dry
	No well equipments are available

F. Needs/Wishes:

1	Cleaning the well hole
2	Deepening the well to depth 160 m
3	Equipped the well with pump and all other equipments (electrical board, turbine, pipes, etc)

Well Profile: 19-14/062**A. General Information**

Well name	Sa'eed Ala' Al Deen		
Well number	19-14/062		
Location	Qasr Hisham Street - Jericho		
Coordinates	E193380/N142630		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Mohamad Sulyman Salama Awad	47	Well manager
	Sulyman Salama Awad	75	Farmer
	Jameel Mahmud Andel Razak Hirbawi	64	Marketer
	Sa'eed Abdel Latif Abdel Muti	52	Well operator

B. Historical Background

Owner	Nazha Al Dajani (owned 145 donum)
Drilling year	1950
Drilling cost	NA
Use	Agriculture Only
Area of irrigable land	500 Dunum (owned by the well owner)
Area of irrigated land	<ul style="list-style-type: none"> • 145 Dunum (owned and used by the well owner) • 355 Dunum (owned by other farmers)
Beneficiaries	<ul style="list-style-type: none"> • 3 households (from the owners families) • NA (tenants and other farmers)
Pump fuel	Diesel
Water selling unit	Pumping hour (According to area of land owned)
Water Costs (per unit)	Operated by an employee appointed by the owner (actual operational costs are unknown)

C. Current Situation

Owner/s	Hamdi Ali Ala'a Adeen
Use	Agriculture Only
Well efficiency	Fair (evaluated by the interviewed persons and the well operator)
Area of irrigable land	1500 Dunum
Area of irrigated land	<ul style="list-style-type: none"> • 145 donums owned by the well owner • 820 donums owned by other farmers
Pump fuel	Electricity/Network
Water selling unit	Cubic meter
water cost (per unit)	No cost (the well owner provide the farmers with water (in cubic meter) and other farming facilities (fertilizers, seeds, seedlings, etc) and share the profit with them.
Beneficiaries	<ul style="list-style-type: none"> • 4 households (well and land owners) • 6 households (tenants of land owned by the well owner) • 23 households (other farmers) • 100 households (workers)
Working forces	<ul style="list-style-type: none"> • 39.3% are women (~55 workers) • 15.7% are children (~22 workers) • 45.0% are men (~63 workers)

Beneficiaries/ Workers representation charts		
Irrigation type	Mostly drip irrigation	
Operator/s	Mohamad Sulyman 'Awad & Said Abed Alateef Abed Al Jawaad	
Operational Cost	<ul style="list-style-type: none"> • Managerial costs: 1,000 NIS/month • Operational costs: 2,500 NIS/month • Fuel (Electricity): 13,000 NIS/month • Maintenance: 800 NIS/month 	
Well Management	Mohamad Sulyman Salama Awad	
Maintenance	During the last five years.	
Contract Diagram		

D. Crop pattern*

Winter Season							
Crop Name	Cropped Area (dun)	Working Days (day/dun)	Required water (m ³ /dun)	Life (days)	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/dun)
Tomato	200	86	1485	210	3	1200	1900
Eggplant	50	123	1454	250	5	600	1200
Cucumber	20	92	540	115	15	1200	12000
Beans	3	122	360	90	4	2000	4000
Sweet pepper	15	284	1360	190	3.5	2000	3500
Squash	200	84	675	120	2.5	2000	5000
Corn	150	79	800	100	1.7	1500	1050
Spinach	15	93	500	100	1.5	1000	750
Snake Cucumber	20	79	500	110	2	1500	1300
Net benefit	1939250 NIS/year						

Spring Season							
Crop Name	Cropped Area (dun)	Working Days (day/dun)	Required water (m ³ /dun)	Life (days)	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/dun)
Jews mallow	150	43	399	57	2.5	1000	1000
Net benefit	150000 NIS/year						

Summer Season							
Crop Name	Cropped Area (dun)	Working Days (day/dun)	Required water (m ³ /dun)	Life (days)	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/dun)
Squash	300	98.6	810	90	2	2500	2400
Tomato	150	160	940	170	4	1500	3500
Eggplant	150	204.3	1530	210	5	1000	2500
Cucumber	15	206.4	540	115	15	1200	1200
Sweet pepper	30	284.3	1360	190	3.5	2000	3500
Cauliflower	70	81.4	690	120	2	1200	1000
Cabbage	50	35.1	204	39	2	1200	1000
Corn	100	78.6	800	100	1.7	1500	1050
Onion	40	132.9	900	120	3	1300	1900
Net benefit	2206000 NIS/year						

E. Market

Product marketing	<ul style="list-style-type: none"> • 2% directly to the consumer (in the same community) • 50% exported to Israeli Market • 2% local market (in the same governorate) • 46% to West Bank Markets
	<p style="text-align: center;">Agricultural Crops Marketing</p> <p>The pie chart illustrates the distribution of agricultural crop marketing. The largest segment is Israeli Markets at 50%, followed by West Bank Markets at 46%. Two smaller segments represent the Same community (2%) and Same Governorate (2%).</p>

F. Farmers List:

Farmer Name	Area of Cultivated Land (Dunum)*	No. of Female workers	No. of Male workers	No. of Children Workers
Sa'eed Abdel Latif Abdel Jawad	150	3	7	1
Mohammed Ahmed Eid	58	7	4	2

Sa'da Mohammed Salama Awad	65	2	5	5
Fawaz Fawzi Sa'eed	40	3	4	0
Ibrahim Saleh Al Rooha	25	2	6	0
Tayseer Al Attar	45	3	4	2
Zohair Al Attar	40	3	4	0
Haitham Rashid Ahmed Daraghma	50	4	3	3
Rashid Ahmed Daraghma	70	5	2	0
Mahmood Ali Awad Daraghma	75	4	4	0
Shafi' Lafi Hamdan	150	5	11	5
Ihab Nafi' Lafi	55	3	3	0
Itihad Subha Ayad	15	3	2	2
Walid Khalil Salama Awad	100	3	0	0
Ibrahim Marzook	40	3	2	0
Wahbi Ibrahim Marzook	25	2	2	2

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	Ein Al Sultan Spring (the farmers store water from Ein Al Sultan spring during winter period and use it during spring and summer seasons, they estimate the stored water by 15,000 m ³ /yr)		
Wells	Code	Name	Type
	19-14/002	Husni Shahwan	Agriculture
	19-14/004	Baker Muhammad Ali	Agriculture
	19-14/038	Muhammad Al Masri	Agriculture
	19-14/040	Bashir Arabi Katabah	Agriculture

H. Problems:

Management	None
Technical	<ul style="list-style-type: none"> All operational equipment is in need of repair or replacement. (The current pump does not operate with its full capacity which is 120 m³/hour but with 75 m³/hour.)
With Beneficiaries	<ul style="list-style-type: none"> Irrigation networks are old, lack of material (plastics, fertilizers, ...) Unable to purchase equipment necessary for production Marketing the products (lack of suitable vehicles)

I. Needs/Wishes:

1	Install a pump with 100 m ³ /hour capacity
2	Install 6" pipes for the well
3	Install electric control boards
4	Electric control system for the distribution of water to farmers
5	Rehabilitate well room

Well Profile: 19-14/064

A. General Information

Well name	Arab Project No.1		
Well number	19-14/064		
Location	Al Mashroua' Al Enshae Al Arabi –Jericho		
Coordinates	E197230/N141140		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	'Aowad Abu Sreer	47	Project Employee
	Mousa Muhamad Abu Halal	33	Project Employee
	Nayef Al Lahham	62	Project Manager

B. Historical Background

Owner/s	Arab Project
Drilling year	1962
Drilling cost	~50,000 (estimated)
Drilling type	Old method (Hand dug)
Use	For the project use (mainly agricultural use)
Area of irrigable land	4000 Donum (these were the available irrigable area which were irrigated from this well and other neighboring wells)
Area of irrigated land	4000 Donum (irrigated from this well and other neighboring wells)
Beneficiaries	This is nongovernmental nonprofit project which aims to benefit as much as can of households.
Pump fuel	Diesel
Water selling unit	Not for selling (for project use mainly for agricultural and livestock)
Water cost	cost of fuel and maintenance

C. Current Situation

Owner/s	Arab Project
This well was not working since 5 years ago due to failure of the well equipments. The well equipments had not been changed due to bad economical situation of the project.	

D. Adjacent water sources

Springs	None		
Wells	Code	Name	Type
	19-13/061	Jericho Cooperative	Agricultural
	19-14/019	Jawdat Sha'sha'ah	Agricultural
	19-14/020	Jawdat Sha'sha'ah	Agricultural
	19-14/039	Basheer Arabi Katbah	Agricultural
	19-14/064	Arab Project No.1	Agricultural
	19-14/065	'Arab Project	Agricultural
	19-14/066	'Arab Project	Agricultural
	19-14/067	'Arab Project	Agricultural
	19-14/068	'Arab Project No.11	Agricultural
	19-14/070	'Arab Project	Agricultural
	19-14/071	'Arab Project	Agricultural
	19-14/072	'Arab Project	Agricultural
	19-14/073	'Arab Project	Agricultural
	19-14/075	'Arab Project No. 14	Agricultural
	19-14/076	'Arab Project	Agricultural
	19-14/080	'Arab Project No. 19	Agricultural

	19-14/081	'Arab Project No. 32	Agricultural
	19-14/091	'Arab Project	Agricultural
	19-14/098	Rekerd Al 'Alami	Agricultural

E. Problems:

Management	None
Technical	The equipments were out of order.
	Technically not working, needs full rehabilitation

F. Needs/Wishes:

1	Cleaning the well hole
2	Equipped the well with pump (100m ³ /hr) and all other equipments (electrical board, turbine, pipes, etc)
3	Water distribution system for irrigation

Well Profile: 19-14/080**A. General Information**

Well name	Arab Project No.19		
Well number	19-14/080		
Location	Al Mashroua' Al Enshae Al Arabi –Jericho		
Coordinates	E197130/N141870		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	'Aowad Abu Sreer	47	Project Employee
	Mousa Muhamad Abu Halal	33	Project Employee
	Nayef Al Lahham	62	Project Manager

B. Historical Background

Owner/s	Arab Project
Drilling year	1962
Drilling cost	NA
Drilling type	Old method (Hand dug)
Use	Agriculture Only
Area of irrigable land	4000 Donum (these were the available irrigable area which were irrigated from this well and other neighboring wells)
Area of irrigated land	NA
Beneficiaries	This is nongovernmental nonprofit project which aims to benefit as much as can of households.
Pump fuel	Diesel
Water selling unit	Not for selling (for project use mainly for agricultural and livestock)
Water cost	cost of fuel and maintenance

C. Current Situation

Owner/s	Arab Project
This well was not working since 10 years ago due to failure of the well equipments. The well had not been equipped due to bad economical situation of the project.	

D. Adjacent water sources

Springs	None		
Wells	Code	Name	Type
	19-13/061	Jericho Cooperative	Agricultural
	19-14/019	Jawdat Sha'sha'ah	Agricultural
	19-14/020	Jawdat Sha'sha'ah	Agricultural
	19-14/039	Basheer Arabi Katbah	Agricultural
	19-14/064	Arab Project No.1	Agricultural
	19-14/065	'Arab Project	Agricultural
	19-14/066	'Arab Project	Agricultural
	19-14/067	'Arab Project	Agricultural
	19-14/068	'Arab Project No.11	Agricultural
	19-14/070	'Arab Project	Agricultural
	19-14/071	'Arab Project	Agricultural
	19-14/072	'Arab Project	Agricultural
	19-14/073	'Arab Project	Agricultural
	19-14/075	'Arab Project No. 14	Agricultural
	19-14/076	'Arab Project	Agricultural
	19-14/080	'Arab Project No. 19	Agricultural

	19-14/081	'Arab Project No. 32	Agricultural
	19-14/091	'Arab Project	Agricultural
	19-14/098	Rekerd Al 'Alami	Agricultural

E. Problems:

Management	None
Technical	No equipments
	Technically not working, need full rehabilitation

F. Needs/Wishes:

1	Cleaning the well hole
2	Equipped the well with pump (100m ³ /hr) and all other equipments (electrical board, turbine, pipes, etc)
3	Water distribution system for irrigation

Well Profile: 19-15/008**A. General Information**

Well name	Abed Al Kareem Njoun		
Well number	19-15/008		
Location	Al –Auja, Jericho		
Coordinates	E 194320/ N 150600		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Abed Al Kareem Njoun	61	Owner

B. Historical Background

Owner/s	Ibrahim Mahmoud Njoun
Drilling year	1957
Drilling cost	\$15,000
Drilling type	Old method (Hand dug)
Use	Agriculture Only
Area of irrigable land	1000 Donum (owned by the well owner)
Area of irrigated land	200 Donum (owned and used by the well owner)
Beneficiaries	The Owner (1 household)
Pump fuel	Diesel
Water selling unit	NA (the well and the cropped land are owned and operated by the same person)
Operational costs	Operated by the owner (cost of fuel and maintenance)

C. Current Situation

This well had been drilled since 1957 with pumping capacity rate 150 m³/hr. The well was used for agriculture only. The water quality of the water was saline, which was not suitable for irrigation; the well had been stopped pumping since year 1961. And until that the well not used any more. The cultivated land in the well area is irrigated from the Al Auja spring channel.

D. Adjacent water sources

Springs	Al Auja channel (8 Km)		
Wells	Code	Name	Type
	19-14/001	Ilyas Mkarkar	Agriculture
	19-15/005	Jawad Dawudi	Agriculture
	19-15/007	Subhi Dajani	Agriculture
	19-15/010	‘Abed Al Kareem Nujoun	Agriculture
	19-15/011	‘Abed Al Mua’ti Al Qutub	Agriculture
	19-15/012	‘Abed Al Mua’ti Al Qutub	Agriculture
	19-15/015	‘Abed Al Ra’uf Nusaibah	Agriculture
	19-15/023	Sulayman Mkarkar	Agriculture

E. Problems:

Management	None
Technical	The well is not working

F. Needs/Wishes:

1	Solving the salinity problem.
2	Well rehabilitation (Purchase and install the well equipment, building maintenance , etc
3	Building the network distribution system (pipes)

Well Profile: 19-15/019

A. General Information

Well name	Saleh Yousef Mahmoud Njourn		
Well number	19-15/019		
Location	Al –Auja, Jericho		
Coordinates	E 195644/N 152371		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Saleh Yousef Mahmoud Njourn	49	Owner

B. Historical Background

Owner/s	Yousef Mahmoud Njourn
Drilling year	1965
Drilling cost	\$10,000
Drilling type	Old method (Hand dug)
Use	Agriculture Only
Area of irrigable land	1000 Donum (owned by the well owner)
Area of irrigated land	<ul style="list-style-type: none"> • 500 Donum (owned and used by the well owner) • 250 Donum (owned and used by other farmers)
Beneficiaries	<ul style="list-style-type: none"> • Well owner: 1 household • Other farmers: 7 household
Pump fuel	Diesel
Water selling unit	Pumping hour
Water cost	NA (cost of fuel and maintenance)

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership
	Saleh Yousef Njourn	Farmer	100	9.52%
	Mousa Yousef Njourn	Deceased	100	9.52%
	Ahmed Yousef Njourn	Farmer	100	9.52%
	Jamil Yousef Njourn	Farmer	100	9.52%
	Jamal Yousef Njourn	Lawyer	100	9.52%
	Fayez Yousef Njourn	Farmer	100	9.52%
	Shaker Yousef Njourn	Free Lance	100	9.52%
	Hasan Yousef Njourn	Farmer	100	9.52%
	Rifa'ah Yousef Njourn	Farmer	50	4.76%
	Jameeleh Yousef Njourn	Deceased	50	4.76%
	Jamlah Yousef Njourn	Farmer	50	4.76%
	Fayzeh Yousef Njourn	Farmer	50	4.76%
	Muneerah Yousef Njourn	Farmer	50	4.76%

This well had been drilled since 1965 with pumping capacity rate 90 m³/hr. The well was used for agriculture only. The water quality of the water was saline, which was not suitable for irrigation; the well had been stopped pumping since year 1967. And until that the well not used any more. The cultivated land in the well area is irrigated from the Al Auja spring channel. The farmers wish to use the saline water to irrigate salinity tolerant crops.

D. Adjacent water sources

Springs	Al Auja channel (8 Km)		
Wells	Code	Name	Type
	19-14/001	Ilyas Mkarkar	Agriculture

	19-15/005	Jawad Dawudi	Agriculture
	19-15/007	Subhi Dajani	Agriculture
	19-15/010	'Abed Al Kareem Nujoun	Agriculture
	19-15/011	'Abed Al Mua'ti Al Qutub	Agriculture
	19-15/012	'Abed Al Mua'ti Al Qutub	Agriculture
	19-15/015	'Abed Al Ra'uf Nusaibah	Agriculture
	19-15/023	Sulayman Mkarkar	Agriculture

E. Problems:

Management	None
Technical	The well is not working

F. Needs/Wishes:

1	Solving the salinity problem
2	Well rehabilitation (Purchase and install the well equipment, building maintenance, etc
3	Building the network distribution system (pipes)

Well Profile: 19-15/028A**A. General Information**

Well name	Al 'Auja well		
Well number	19-15/028A		
Location	Al -Auja, Jericho		
Coordinates	E 194800/N 150174		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Saleh Yousef Mahmoud Njourn	49	Member of Al 'Auja Village Council

B. Historical Background

Owner/s	Al-'Auja Village Council
Drilling year	1999
Drilling cost	\$60,000
Use	Domestic
Beneficiaries	Al -'Auja residents
Note: the drilling of the well was not completed (the water not reached)	

C. Current Situation

Well Committee	Al-'Auja Village Council: <ul style="list-style-type: none"> • Mahmoud Ibraheem Saleh/Head • Abed Al Raheem Njourn/ Deputy • Diyab Njourn/ Member • Turki Abu 'Ayshah/ Member • Salah 'Ata/ Member • Abdel Kareem 'Atayat/ Member • Ahmad Huseen Shabanat/ Member
The well has been drilled for domestic purposes, the depth of this well is 110 meter, the reached water is not enough to install pump. The village council suggested drilling more in order to reach to sufficient water. It is important to mention that there are two old wells neighboring this well (just few hundreds of meters). Both are closed due to water quality and mainly due to salinity.	

D. Adjacent water sources

Springs	Al Auja channel (8 km)		
Wells	Code	Name	Type
	19-14/001	Ilyas Mkarkar	Agriculture
	19-15/005	Jawad Dawudi	Agriculture
	19-15/007	Subhi Dajani	Agriculture
	19-15/010	'Abed Al Kareem Nujoun	Agriculture
	19-15/011	'Abed Al Mua'ti Al Qutub	Agriculture
	19-15/012	'Abed Al Mua'ti Al Qutub	Agriculture
	19-15/015	'Abed Al Ra'uf Nusaibah	Agriculture
	19-15/023	Sulayman Mkarkar	Agriculture

E. Problems:

Management	None
Technical	The well is not working (no sufficient water at the drilled depth)

F. Needs/Wishes:

1	Complete drilling the well
2	Purchase the well equipments.

Well Profile: 19-16/005

A. General Information

Well name	Abdul Aziz Labbad		
Well number	19-16/005		
Location	Al Jiftlik, Jericho		
Coordinates	E199590/N168850		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Abdul Aziz Labbad	70	Owner
	Habes Labbad	40	Owner

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership
	Labbad Sarys Ataa	300	100%
Drilling year	1972		
Drilling cost	40000 \$		
Use	Agriculture Only		
Area of irrigable land	500 Donum		
Area of irrigated land	<ul style="list-style-type: none"> • 300 donum (owned by the well owner) • 200 donum (owned by other farmers) 		
Beneficiaries	<ul style="list-style-type: none"> • Well owner: 11 households • Other farmers: 15 households 		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	25 NIS/hour		

C. Current Situation

Owners	Name	Telephone	Occupation	Owned land (Donum)	Ownership
	Habes Labbad	NA	Framer	20	10%
	Abdul Aziz Labbad	NA	Framer	80	10%
	Hassuna Labbad	NA	Framer	20	10%
	Husny labbad	NA	Framer	20	10%
	Shaker Labbad	NA	Framer	20	10%
	Sameh Labbad	NA	Framer	20	10%
	Sabre Labbad	NA	Farmer	20	10%
	Slfan Labbad	NA	Worker	20	10%
	Kefaya Labbad	NA	Housewife	NA	10%
	Aziza Labbad	NA	Housewife	NA	10%
Use	Agricultural use				
Well Efficiency	Fair (evaluated by the interviewed persons and the well operator)				
Area of irrigable land	400 Donum				
Area of irrigated land	200 Dunums				
Pump fuel	diesel				
Water selling unit	Pumping hour				
Water cost (Unit)	~ 30 NIS/hr (Diesel and Maintenance)				
Beneficiaries	<ul style="list-style-type: none"> • 14 households (land and well owners) • 5 households (workers) 				

Working forces	<ul style="list-style-type: none"> • Women: 33.7% (~31workers) • Men: 30.4% (~28 workers) • Children:35.9% (~33 workers) 	
Beneficiaries/Workers representation charts	<p>Beneficiaries (Households)</p>	<p>Working Force Vs Gender</p>
Irrigation type	Mostly drip irrigation: 200 Donum	
Operator	Abdul Aziz Labbad	
Operational Cost	Fuel (Desiel): ~2400NIS/Month Maintenance: 200 NIS/Month	
Well Management	Abdul Aziz Labbad	
Maintenance	No maintenance.	
Contract Diagram		

Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Eggplants	80	129	1160	210	Open	3	1000	1000
Squash	80	97	700	100	Open	4	1500	1200
Tomato	40	97	760	150	Open	5	800	600
Date	10	26	3600	Long life	Open	NA	NA	NA
Spring Season								
Corn	60	13	360	90	Open	1	1000	600
Cucumber	60	60	583	90	Open	1.5	1500	900
Net benefit	290,000 NIS/Year							

*numbers were estimated by the farmers from their experience

D. Market

Product marketing	<ul style="list-style-type: none"> 60% exported to Israeli Market 40% to West Bank markets (mainly to Jenin, Nablus, Ramallah, Bethlahem and Hebron Markets)
	<p>Agricultural Crops Marketing</p> <p>The pie chart is titled 'Agricultural Crops Marketing'. It is divided into two segments: a larger blue segment representing 'Israeli Markets' at 60%, and a smaller red segment representing 'Nablus, Jenin, Hebron, Bethlehem and Ramallah Markets' at 40%.</p>

E. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Habes Labbad	20	3	4	3
Abdul Azez Labbad	20	2	2	0
Hassuna Labbad	20	6	3	5
Husny labbad	20	4	3	4
Shaker Labbad	20	4	3	5
Sameh Labbad	20	1	3	2
Mutib Labbada	20	2	2	2
Mushrif Abdulazez	20	4	3	5
Hamada Labbada	20	0	1	0
Bassam Labbada	30	5	4	7

*Cultivated areas are estimated by farmers

F. Adjacent water sources

Springs	<ul style="list-style-type: none"> Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) Josala Spring (AQ/031) 		
Wells	Code	Name	Type
	19-16/003	Ahmad Hashem al Zghayye	Agriculture
	19-16/004	Ahmad Hashem al Zghayye	Agriculture
	19-17/054	Ma'rouf Abu Samreh	Agriculture

G. Problems:

Management	The farmers have not the able to pay for the diesel and other operational costs
Technical	<ul style="list-style-type: none"> Pumping rate was reduced from 70m³/hr to 50 m³/hr The well equipments need to be maintained Replacement of pumps. No room for the well and for the operator

H. Needs/Wishes:

1	Purchase 60 hp diesel pump.
2	Purchase turbines 6" with 7 impellers
3	Expansions of the irrigation network (~1000m)
4	Construct broom for the well and operator
5	There is opportunity to increase the cultivated area by 200 donums which benefit 15 households in case there is enough water.

Well Profile: 19-17/009**A. General Information**

Well name	Raffeq Al-Kamhawi		
Well number	19-17/009		
Location	Al Mosrara Al Foma, Qrawa Al Tahta, Al Jiftlik-Jericho		
Coordinates	E197470/N170230		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Imad Zahy Rafeq Kamhawi	46	Owner

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership
	Raffeq Kamhawi	NA	100%
Drilling year	1962		
Drilling cost	1500 JD		
Use	Agriculture only		
Area of irrigable land	150 Donum		
Area of irrigated land	150 Donum		
Beneficiaries	1 household		
Pump fuel	Diesel		
Water selling unit	NA (the well used by the owner)		
Water cost (per unit)	NA (cost of fuel and maintenance)		

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership
	Imad Zahy Raffeq Kamhawi	Framer	150	100%
Use	Agricultural use only.			
Well Efficiency	High (Evaluated by the interviewed persons)			
Area of irrigable land	136 Donum (owned by the well owner)			
Area of irrigated land	136 Dunum.			
Pump fuel	Electricity/Network			
Water selling unit	NA (not for sale, for the owner use)			
water cost	NA (cost of fuel and maintenance)			
Beneficiaries	<ul style="list-style-type: none"> • 1 households (owner of well and land) • 40 households (workers). 			
Working forces	<ul style="list-style-type: none"> • 41 workers (one is the well and land owner and 40 workers (all are men)). 			

Beneficiaries/ Workers representation charts	<p>Working Force Vs Gender</p>	<p>Beneficiaries (Households)</p>
Irrigation type	Mostly Drip irrigation	
Operator	Hazem Abu-Ryham	
Operational Cost	<ul style="list-style-type: none"> • Management: 600 NIS/Month • Fuel (Electricity): 3000 NIS/Month • Maintenance: 200 NIS/Month 	
Well Management	Imad Zahy Rafeq Kamhawi	
Maintenance	within the last five years ago (change it from diesel to electricity)	
Contract Diagram		

D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Cucumber	27	64	725		Green houses	9	600	0
Eggplants	12	66	1510		Open	10	500	1500
Squash	20	43	580		Open	2	1500	1000
Green beans	27	34	660		Green houses	5	2000	5000
Yellow beans	50	39	690		Open	1.5	6000	300
Pepper	30	60	1500		open	5	1500	2500
Net benefit	263,000 NIS/Year							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 90% exported to Israeli Market • 3 % to Ramallah Markets • 7% to Jenin Markets 							
	<p>Agricultural Crops Marketing</p> <p>The pie chart illustrates the distribution of agricultural crop marketing. The largest segment is Israeli Markets at 90%, followed by Nablus Markets at 7%, and Jenin Markets at 3%.</p> <table border="1"> <thead> <tr> <th>Market</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Israeli Markets</td> <td>90%</td> </tr> <tr> <td>Nablus Markets</td> <td>7%</td> </tr> <tr> <td>Jenin Markets</td> <td>3%</td> </tr> </tbody> </table>	Market	Percentage	Israeli Markets	90%	Nablus Markets	7%	Jenin Markets
Market	Percentage							
Israeli Markets	90%							
Nablus Markets	7%							
Jenin Markets	3%							

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Imad Zahy Raffeq Kamhawi	136	0	40	0

G. Adjacent water sources

Springs	<ul style="list-style-type: none"> • Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-16/001	Ali Abedallah Damen	Agricultural
	19-16/008	Burhan Damen	Agricultural
	19-16/010	Shaher Damen	Agricultural
	19-17/004	Al Jiftlik Nursery	Agricultural
	19-17/006	Adham Damen	Agricultural
	19-17/010	Husin Dra'i	Agricultural
	19-17/053	Al Jiftlik Nursery	Agricultural

H. Problems:

Management	NA
Technical	<ul style="list-style-type: none"> • Irrigation network need to be extended and maintained • The pipes of the old pump had fallen in the well hole.

I. Needs/Wishes:

1	Replacement of 40 meter pipes from 4" to 6" .
2	Purchase a new standby pump
3	Cleaning of the well.
4	Remove the fallen pipes from the well hole
5	Supply of electricity line with 600m long and paying the connecting fees.

Well Profile: 19-17/010

A. General Information

Well name	Hussain Al-Dure'i	
Well number	19-17/010	
Location	Al –Jiftlik -Jericho	
Coordinates	E197060/N170150	
Data source/ Interviewed Persons	Name	Relation with Well
	Jawad Al- Masry	Owner
	Osama Al-Masry	-
	Mua'weya Al-Masry	-

B. Historical Background

Owner/s	Hussain Al-Dure'i
Drilling year	1962
Drilling cost	\$25,000
Use	Agriculture Only
Area of irrigable land	140 Donum (owned by the well owner)
Area of irrigated land	140 Donum (owned and used by the well owner)
Beneficiaries	11 households (The owner household and 10 additional households)
Pump fuel	Diesel
Water selling unit	Pumping hour
Water cost (per unit)	NA (cost of fuel and maintenance)

C. Current Situation

Owners	Name	Land area (Donum)	Ownership
	Jawad Riziq Al-Masry	60	33%
	Abdullah Hussain Al-Duri'i	10	NA
	Manwa Hussain Al-Duri'i	10	NA
	Salwa Hussain Al-Duri'i	10	NA
	Sita Hussain Al-Duri'i	10	NA
	Marwan Mutlaq Al-Duri'i	10	NA
	Salma Al-Masry	20	NA
	Ziad Ali Al-Masry	60	33%
Use	Agriculture Only		
Well Efficiency	Fair (evaluated by the interviewed persons and the well operator)		
Area of irrigable land	500 Donum (owned by the well owner)		
Area of irrigated land	200 Dunums (owned by the well owners and cultivated by the tenants (farmers))		
Pump fuel	Electrical Generator		
Water selling unit	Pumping hour		
Water cost (per Unit)	50 NIS/pumping hour		
Beneficiaries	<ul style="list-style-type: none"> • 9 households (well and land owners) benefit from the tenant of land and water selling. • 12 households (land tenants farmers) • 5 households (workers) 		

Working forces	<ul style="list-style-type: none"> • 37.8% are women (~59 workers) • 32.7% are children (~51workers) • 29.5% are men (~46 workers) 	
Beneficiaries/Workers representation charts	<p>Beneficiaries (Households)</p>	<p>Working Force Vs Gender</p>
Irrigation type	Mostly drip irrigation	
Operator	Kabuki	
Operational Cost	<ul style="list-style-type: none"> • Operator: 400NIS/Month • Electricity : 9,500 NIS/Month • Maintenance: 1200 NIS/Month 	
Well Management	Owners	
Maintenance	Not maintained since a long time (more than five years)	
Contract Diagram		

D. Crop pattern*

Winter Season							
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Eggplant	50	75	995	220	6	500	300
Squash	50	26	363	110	2	1000	400

Beans	50	30	315	140	2	5000	1500
Pepper	50	75	920	220	1	500	300
Spring Season							
Corn	100	13.5	390	90	1.5	1000	300
Net benefit	155,000 NIS/Year						

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> 80% exported to Israeli Markets 20% to West Bank Markets distributed, almost, equally to Jenin, Nablus, Ramallah, Bethlehem and Hebron markets.
	<p>Agricultural Crops Marketing</p> <p>The pie chart illustrates the distribution of agricultural crops. The majority, 80%, is sold to Israeli Markets, represented by a large blue slice. The remaining 20% is sold to West Bank Markets, represented by a smaller red slice.</p>

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Ahmad Abed Mahmoud	15	3	4	4
Mahmoud Abed Mahmoud	12	2	3	2
Muhammad Abed Mahmoud	10	6	4	6
Naser Abed	14	5	3	4
Thabet Hamdallah	16	3	4	2
Ref'at Hamdallah	18	4	4	5
Fawaz Hamdallah	19	6	2	4
Abed Mahmoud Daraghmeh	10	8	6	8
Mwafaq Daraghmeh	17	4	3	3
Qadri Qasem	18	5	2	4
Samer Qadri	16	6	4	2
Jihad Daraghmeh	15	3	4	3
Hamzeh Daraghmeh	14	4	3	4

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	<ul style="list-style-type: none"> Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-16/001	Abedallah Damen	Agriculture
	19-16/008	Burhan Damen	Agriculture
	19-17/004	Saher Damen	Agriculture
	19-17/006	Al Jiftilk Nursery	Agriculture
	19-17/009	Adham Damen	Agriculture

	19-17/021	Rafeeq Qumhawi	Agriculture
	19-17/053	Al Jiftilk Nursery	Agriculture

H. Problems:

Management	None
Technical	<ul style="list-style-type: none"> • The pump shaft is old and needs to be changed • Pumping pipes are old and need to be changed • Sediments in the bottom of the well

I. Needs/Wishes:

1	Submersible pump with capacity of 100m ³ /hour
2	100m electrical cable
3	The well needs 90m pumping pipes /6"

Well Profile: 19-17/012**A. General Information**

Well name	Maraj Na'jah C5		
Well number	19-17/012		
Location	Marj Gazal, Jericho		
Coordinates	E199700/N174675		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Mohamad Hasan Abdalfatah Khams	35	Owner
	Hasan Abdalfatah Khams	65	Owner

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership (%)
	Fourth point (Government Organization)	97	100
Drilling year	1956		
Drilling cost	NA		
Use	Agriculture only		
Area of irrigable land	97 Donum		
Area of irrigated land	97 Donum		
Beneficiaries	9 households		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	6 NIS/hr		

C. Current Situation

The well has been stopped since the 1967 war. Because the well was owned by governmental organization; nobody try to operate the well after the 1967.

D. Adjacent water sources

Springs	None		
Wells	Code	Name	Type
	19-17/011	Badee' Younes	Agricultural
	19-17/014	Marj Na'jah	Mekarot
	19-17/020	Marj Na'jah 3B	Agricultural
	19-17/029	Arqaman No. 29	Mekarot
	20-17/016	Sulyman Saleh	Agricultural
	20-17/018	Mahmoud Ali Salem	Agricultural
	20-17/019	Jamil Khamees	Agricultural

Well Profile: 19-17/023

A. General Information

Well name	Burhan Al Damen		
Well number	19-17/23		
Location	Al Jiftlik, Jericho		
Coordinates	E194200/N175230		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	'Eqab Burhan Al Damen	62	Owner
	Fuad Mithqal Buran	NA	Owner

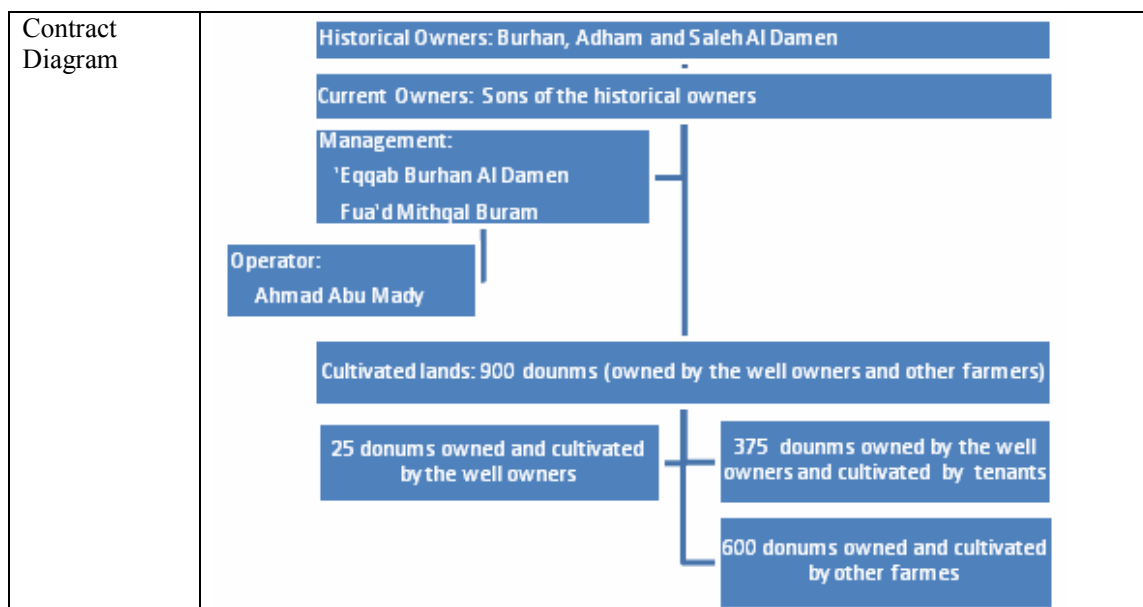
B. Historical Background

Owners	Name	Telephone	Owned land (Donum)	Ownership (%)
	Burhan Al Damen	NA	200	33.3
	Adham Al Damen	NA	200	33.3
	Saleh Al Damen	NA	200	33.3
Drilling year	1958			
Drilling cost	35,000 \$			
Use	Agriculture Only			
Area of irrigable land	1000 Donum			
Area of irrigated land	1000 Donum			
Beneficiaries	<ul style="list-style-type: none"> Well owner: 3 household Other farmers: 8 household 			
Pump fuel	Diesel			
Water selling unit	Pumping hour			
Water cost (per unit)	0.5 JD/hr			

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership (%)
	Mythqal Al Damen	NA	21	NA
	'EOqab Al Damen	Retired	21	NA
	Waleed Al Damen	Retired	21	NA
	Abdul Qader Al Damen	Accountant	21	NA
	Mazen Al Damen	Dead*	21	NA
	Hetham Al Damen	Employee	21	NA
	Basel Al Damen	Employee	21	NA
	Samer Al Damen	Employee	21	NA
	Saher Al Damen	Wife house	21	NA
	Ghassan Al Damen	Manager	85	NA
	Basher Al Damen	engineer	85	NA
	Sarhan Al Damen	Dead*	85	NA
	Quteba Al Damen	Trader	50	NA
	Aoyyna Al Damen	Dead*	50	NA
	Othyna Al Damen	Dead*	50	NA
	Johena Al Damen	Immigrant	50	NA
	*the ownership transferred to the dead sons			
Use	Agricultural use			

Well Efficiency	Fair (Evaluated by the interviewed persons)																			
Area of irrigable land	1000 Donum																			
Area of irrigated land	<ul style="list-style-type: none"> • 25 Dounms (cultivated by the well and land owners) • 375 Dounms (cultivated by the tenants) • 600 Donums (other farmers) 																			
Pump fuel	Diesel																			
Water selling unit	Pumping hour																			
Water cost (per unit)	140 NIS/Hr																			
Beneficiaries	<ul style="list-style-type: none"> • 16 households (well and land owners) • 13 households (land tenants) • 20 households (other farmers) • 20 households (workers) 																			
Working forces	<ul style="list-style-type: none"> • Women: 35.7% (~55 workers) • Children: 29.9% (~46 workers) • Men: 34.4% (~53 workers) 																			
Beneficiaries/Workers representation charts	<p style="text-align: center;">Beneficiaries (Households)</p> <table border="1"> <caption>Beneficiaries (Households)</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Well & Land Owners</td> <td>23%</td> </tr> <tr> <td>Land Tenants</td> <td>19%</td> </tr> <tr> <td>Workers</td> <td>29%</td> </tr> <tr> <td>Other Farmers</td> <td>29%</td> </tr> </tbody> </table>	Category	Percentage	Well & Land Owners	23%	Land Tenants	19%	Workers	29%	Other Farmers	29%	<p style="text-align: center;">Working Force Vs Gender</p> <table border="1"> <caption>Working Force Vs Gender</caption> <thead> <tr> <th>Gender</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Men</td> <td>34%</td> </tr> <tr> <td>Women</td> <td>36%</td> </tr> <tr> <td>Children</td> <td>30%</td> </tr> </tbody> </table>	Gender	Percentage	Men	34%	Women	36%	Children	30%
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Gender	Percentage																			
Men	34%																			
Women	36%																			
Children	30%																			
Irrigation type	<ul style="list-style-type: none"> • Drip irrigation: 800 Donum • Furrow irrigation: 200 Donum 																			
Operator	Ahmad Abu Mady																			
Operational Cost	<ul style="list-style-type: none"> • Operator: 1000 NIS/Month • Fuel (Electricity): 40,000 NIS/Month • Maintenance: 600 NIS/Month 																			
Well Management	<ul style="list-style-type: none"> • 'Eqqab Burhan Al Damen • Foud Mithqal Buram 																			
Maintenance	Since last year																			



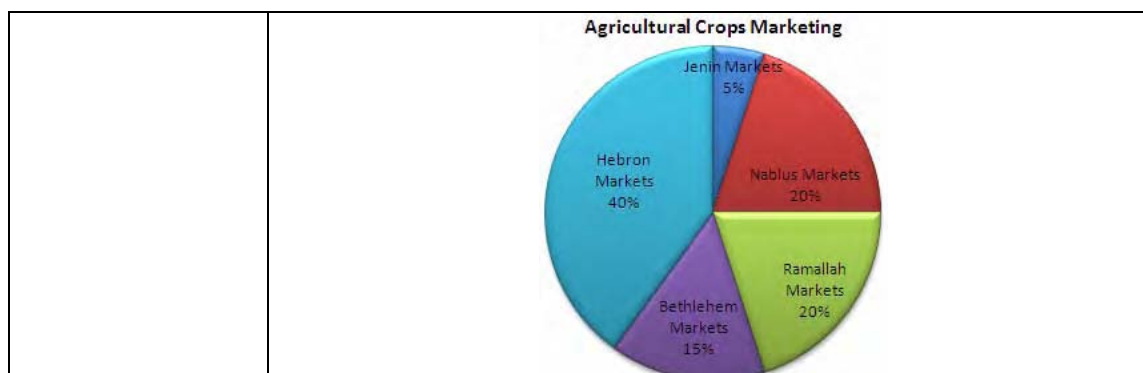
D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Palms	300	162	1303	Long Life	Open	3	1000	400
Tomato	20	219	1710	270	Green House	20	1000	5000
Corn	200	23	533	80	Open	1	1500	300
Squash	150	37	400	90	Open	2	1500	400
Eggplants	70	85	1420	220	Open	3	1000	700
Spring Season								
Corn	200	21	500	75	Open	1	1000	300
Net benefit	449,000 NIS/Year							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 5% to Jenin Markets • 20% to Nablus Markets • 20% to Ramallah Markets • 15% to Bethlehem Markets • 40% to Hebron Markets
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F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Mohammad Al Ajjori	80	4	4	3
Hazza' Draghma	180	5	4	5
Marwan Al Tobasi	75	3	5	4
Mohammad Ahmad	120	6	2	4
Mohammad Abu hind	100	2	4	3
Abdul Haleem Abdul Razzaq	125	4	5	5
Rafea' Alanabosy	75	5	5	4
Ahmad Kassab	50	5	3	3
Abdul Rahman Samerat	100	3	5	2
Feasal Ali Al Khaleel	75	5	4	4
Hasan Abu Sarees	50	4	6	6
Wasfe Alghazawe	200	6	2	2
Ahmad Naef	80	2	4	1

G. Adjacent water sources

Springs	<ul style="list-style-type: none"> Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-17/056	Mahmoud Damen	Agriculture
	19-17/043	Abed Al Qader Abed	Agriculture
	19-17/046	Nasha'at Al Masri	Agriculture
	19-17/055	Jawad Al Masri	Agriculture
19-17/058	Masawa No.1	Mekarot	

H. Problems:

Management	NA
Technical	<ul style="list-style-type: none"> Irrigation network is old and needs rehabilitation and expansion The turbine and pumping pipes are very old and needs to replace The engine is very old

I. Needs/Wishes:

1	Replacement of the well engine with 170 hp pump
2	Replacement of the pumping pipes 102 m/6"
3	Purchase new turbine 6" / 12 impellers
4	Gear head 2/3.

Well Profile: 19-17/027

A. General Information

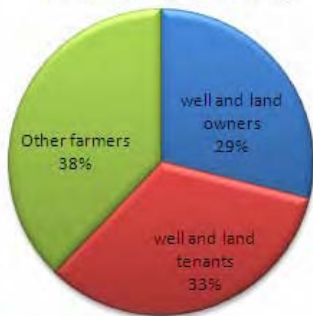
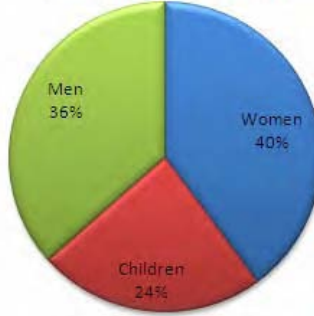
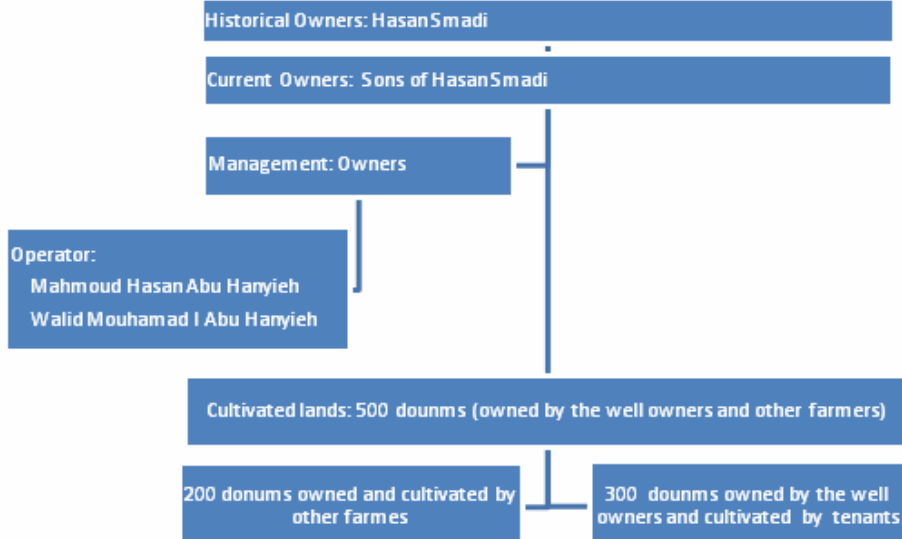
Well name	Hasan Smadi		
Well number	19-17/027		
Location	Al -Jiftlik, Jericho		
Coordinates	E196250/ N171470		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Mahmoud Hasan Abu Hanyieh	63	Tenant
	Walid Mouhamad Ibraheem Abu Hanyieh	35	Tenant
	Fawzy Darwsh	33	Farmer
	Isaa Hasan Al Sumadi	65	Owner

B. Historical Background

Owner/s	Hasan Al Smadi Family
Drilling year	1962
Drilling cost	\$10,000
Drilling type	Old method (Hand dug)
Use	Agriculture only
Area of irrigable land	375 Donum (owned by the well owner)
Area of irrigated land	375 Donum (owned and used by the well owner)
Beneficiaries	The Owner (1 household) and 10 additional households from working the owner family
Pump fuel	Diesel
Water selling unit	NA (the well and the cropped land are owned and operated by the same person)
Water Unit cost	NA (Operated by the owner: cost of fuel and maintenance)

C. Current Situation

Owner/s	Issa Hasan Al Smadi and Brothers
Use	Agriculture only
Well efficiency	Fair (evaluated by the interviewed persons)
Area of irrigable land	575 Donum (owned by the well owner, the tenants and other farmers)
Area of irrigated land	<ul style="list-style-type: none"> • 300 Dunums owned by the well owners and cultivated by the tenants) • 200 Donums owned and cultivated by other farmers
Pump fuel	Diesel
Water selling unit	<ul style="list-style-type: none"> • For the well tenants/Owners: Operated by the tenants (cost of fuel and maintenance) • For Others farmers: Pumping hour
Operational costs	<ul style="list-style-type: none"> • For the well tenants/Owners: NA • For Others farmers: 60NIS/hr
Beneficiaries	<ul style="list-style-type: none"> • 13 households (well and land owners) benefit from the tenant of land and the well • 15 households (well and land tenants) • 17 households (other farmers)
Working forces	<ul style="list-style-type: none"> • 39.9% are women (~93 workers) • 23.6% are children (~85 workers) • 36.5% are men (~55 workers)

Beneficiaries/ Workers representation charts	<p style="text-align: center;">Beneficiaries (household)</p> 	<p style="text-align: center;">Working Force Vs Gender</p> 
Irrigation type	Mostly drop irrigation	
Operator/s	<ul style="list-style-type: none"> • Mahmoud Hasan Abu Hanyieh • Walid Mouhamad Ibraheem Abu Hanyieh (both are tenantry of the land and the well)	
Operational Cost	Fuel (Diesel): 13,000 NIS/Year	
Well Management	Owners	
Maintenance	Not maintained since a long time (more than five years)	
Contact Diagram		

D. Crop pattern*

Winter Season							
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Eggplant	100	407	1340	330	5	800	200
Squash	200	71	630	135	2	1500	300
Cucumber	50	71	690	135	2	2000	500
Yellow bean	50	86	653	120	2.5	2000	500
Corn	100	19	560	130	1	1300	150
Spring Season							
Corn	200	19	640	130	1	1300	150

Squash	200	79	773	140	2.5	1000	600
Net benefit	295,000 NIS/year						

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> 30% exported to Israeli Market 70% to West Bank Markets distributed, almost, equally to Jenin, Nablus, Ramallah, Bethlehem and Hebron markets.
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F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Mahmoud Hasan Abu Hanyieh	15	7	1	0
Omer Ali Abu Hanyieh	15	4	4	2
Nae'l Fares A'nabousi	30	2	2	2
Abu Hamdan	25	3	4	2
Ibrahem Hamdan	20	1	3	1
Najeh Abu Jaber	24	4	4	4
Ayman A'nabousi	13	4	4	6
Walid Mohamad Abu Hanyieh	3	4	3	5
Sulayman Masaa'ed	50	6	6	4
Ali Samarah Bani Oudeh	50	13	10	6
Qadree Masaa'ed	40	6	8	4
Ali Tawfeeq Bani Oudeh	80	16	12	6
Subhi Abu Hatab	100	12	11	7
Abdelbasit Darweesh	70	11	13	6

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	<ul style="list-style-type: none"> Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-17/002	Waheed Al Masri	Agriculture
	19-17/024	Basel Kan'an	Agriculture
	19-17/052	Araih No. 1	Mekarot

H. Problems:

Management	None
Technical	<ul style="list-style-type: none"> The pump shaft is broken and needs to be changed The well needs an urgent maintenance Expansion/replacement of the distribution system

I. Needs/Wishes:

1	Replacement to electrical motor or replacement the existing motor with new one (90 HP)
2	Maintenance of the well building
3	The well needs turbine (diameter: 6", 14 turbine impellers, 18/32mm Columns)
4	The well needs pumping 18 pipes /6"

Well Profile: 19-17/033**A. General Information**

Well name	Dya'a Saleh Abdo		
Well number	19-17/033		
Location	Al Jiftlik, Jericho		
Coordinates	E196510/N172910		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Khader Mahmoud Abu Sadah	78	Farmer

B. Historical Background

Owner/s	Dya'a Saleh Abdo
Drilling year	1958
Drilling cost	NA
Drilling type	Old method (Hand dug)
Use	agricultural only
Area of irrigable land	350 Donum
Area of irrigated land	350 Donum
Beneficiaries	<ul style="list-style-type: none"> Well owners: 2 households Other farmers: 3 households
Pump fuel	Diesel
Water selling unit	Pumping hour
Water cost (per unit)	<ul style="list-style-type: none"> Well Owner: NA (cost of fuel and maintenance) Other framers: 10 NIS/pumping hour

C. Current Situation

Owners	Name	Owned land (Donum)	Ownership
	Sulyman Abdo	150	62%
	Sulyman Abdo Brothers	100	38%
<ul style="list-style-type: none"> This well is dried since year 2000 The well has a license to drill to more depth, but due to economical situation and to carelessness of the well owner no actions has been taken place. Most of the irrigable area (~250 donum) is cropped with rainfed crops. 			

D. Adjacent water sources

Springs	<ul style="list-style-type: none"> Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-17/007	Fathallah Al Masri	Agricultural
	19-17/055	Jawad Al Masri	Agricultural

E. Problems:

Management	Carelessness of the well owners
Technical	The well is dry
	No well equipments are available

F. Needs/Wishes:

1	Cleaning the well hole
2	Deepening the well from depth 57m to depth 100 m
3	Equipped the well with pump and all other equipments (electrical board, turbine, pipes, etc)
4	Establish distribution network for irrigation

Well Profile: 19-17/34

A. General Information

Well name	Farid Hafez Al-Shak'a		
Well number	19-17/034		
Location	Frush Biet Dajan , Nablus		
Coordinates	E192740/N178370		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Farid Hafez Farid Al-Shak'a	45	Owner

B. Historical Background

Owner/s	Name	Telephone	Owned land (Donum)	Ownership
	Rajeh Farid Al-Shak'a	NA	200	50%
	Hafez Farid Al-Shak'a	NA	200	50%
Drilling year	1965			
Drilling cost	\$10,000			
Drilling type	Old method (Hand dug)			
Use	Agriculture Only			
Area of irrigable land	400 Donum (owned by the well owner)			
Area of irrigated land	<ul style="list-style-type: none"> • 200 Donum (owned and cultivated by the well owner) • 100 Donum (By the tenants) 			
Beneficiaries	<ul style="list-style-type: none"> • 6 households (from the owners families) • 20 households (workers and other farmers) 			
Pump fuel	Diesel			
Water selling unit	Pumping hour			
Operational costs	Operated by the owner (cost of fuel and maintenance)			

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership
	Rajeh Farid Hafez Al-Shak'a	Merchant	100	50%
	Hafez Farid Al-Shak'a	Farmer	100	50%
Use	Agriculture Only			
Well efficiency	Fair (evaluated by the interviewed persons)			
Area of irrigable land	300 Donum (owned by the well owner, the tenants and other farmers)			
Area of irrigated land	<ul style="list-style-type: none"> • 200 Dunums owned and cultivated by the well owners • 100 Donums owned and cultivated by other farmers 			
Pump fuel	Diesel			
Water selling unit	<ul style="list-style-type: none"> • For the well tenants/Owners: Operated by the tenants (cost of fuel and maintenance) • For Others farmers: Pumping hour 			
Water cost (per unit)	120NIS/hr			
Beneficiaries	<ul style="list-style-type: none"> • 17 households (well and land owners) • 30 households (farmers and land tenants) • 5 households (workers) 			
Working forces	<ul style="list-style-type: none"> • 45.5% are women (~30 workers) • 12.1% are children (~8 workers) 			

	<ul style="list-style-type: none"> 42.4% are men (~28 workers) 	
Beneficiaries/Workers representation charts	<p>Beneficiaries (Households)</p>	<p>Working Force Vs Gender</p>
Irrigation type	<ul style="list-style-type: none"> Drip irrigation: 200 Donums Furrow irrigation: 100 Dounums 	
Operator	Hafez Farid Al-Shak'a (One of the owners of the well)	
Operational Cost	<ul style="list-style-type: none"> Fuel (Diesel): 8000 NIS/Month Maintenance: 500 NIS/Month 	
Well Management	Owners	
Maintenance	Not maintained since a long time (more than five years)	
Contract Diagram		

D. Crop pattern*

Winter Season							
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Citrus	100	114	2839	Long Life	3	1000	500
Tomato	50	54	1100	90	4	300	100
Squash	50	43	833	50	4	400	150

Net benefit	62,500 NIS/Year
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*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 40% exported to Israeli Market • 60% to West Bank Markets distributed, almost, equally to Jenin, Nablus, Ramallah, Bethlehem, Jericho and Hebron markets.
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F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Rajeh Farid Hafez Al-Shaka'a	100	0	1	0
Hafez Farid Al-Shaka'a	100	2	4	2
Hashim Mustafa Al-Abisi	8	4	1	0
Yousef Ahmad Al-Amawi	8	8	2	0
Abdul Musen Ahmad Al-Amawi	8	2	5	0
Saleh Abu-Muhawish	8	4	5	0
Kamel Abed Abu-Amara	8	5	4	0
Hamada Yousef Abu-Kareem	8	2	1	1
Abdullah Saleh Abu-Muhawish	8	0	1	0
Fawaz sh'adeh Mashes'ati	8	3	2	3
Yehya Hashim Al-Abisi	10	0	1	0
Osama Hashim Al-Abisi	10	0	1	0

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	<ul style="list-style-type: none"> • Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-17/047	Hassan Mahmoud Abdul Jaleel	Agricultural
	19-17/044	Muhamad Yousef Shaka'ah	Agricultural
	19-17/045	Hasan 'Abasi	Agricultural
	19-17/050	Muhamad Ahmad Abed	Agricultural
	19-17/051	Tawfeeq Zaydi	Agricultural
	19-17/057	'Atarah Mekarot No.1	Mekarot

H. Problems:

Management	None
Technical	Turbine, engine and pipes are very old and need an urgent replacement
Finance	Dept on the well and farmers

I. Needs/Wishes:

1	Replacement to Electrical motor (170HP)
2	500 m Irrigation network 6"
3	The well needs turbine (diameter: 10", 19 turbine impellers)
4	The well needs pumping pipes 8"

Well Profile: 19-17/047

A. General Information

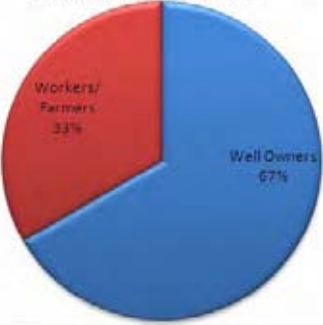
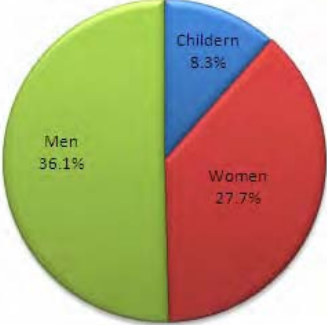
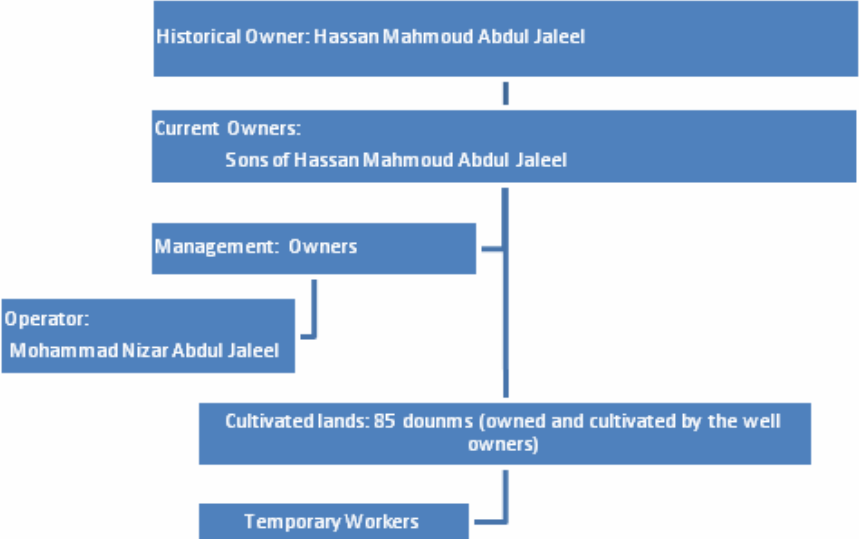
Well name	Hassan Mahmoud Abdul Jaleel		
Well number	19-17/047		
Location	Frush Biet Dajan, Nablus		
Coordinates	E192410/N178970		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Nizar Hassan Abdul Jaleel	55	Owner
	Muhammad Nizar Abdul Jaleel	29	Owner

B. Historical Background

Owner/s	Hassan Abdul Jaleel's Family
Drilling year	1965
Drilling cost	NA
Use	Agriculture only
Area of irrigable land	80 Donum (owned by the well owner)
Area of irrigated land	80 Donum (owned and used by the well owner)
Beneficiaries	The Owner (1 household)
Pump fuel	Diesel
Water selling unit	NA (the well and the cropped land are owned and operated by the same person)
Operational costs	Operated by the owner (cost of fuel and maintenance)

C. Current Situation

Owner/s	Nizar Hassan Abdul Jaleel and Brothers
Use	Agriculture Only
Well efficiency	Fair (evaluated by the interviewed persons)
Area of irrigable land	85 Donum (owned by the well owner)
Area of irrigated land	85 Dunums owned by the well owners
Pump fuel	Diesel
Water selling unit	<ul style="list-style-type: none"> • For the well Owners: Operated by the owners (cost of fuel and maintenance) • For Others farmers: Pumping hour
Water cost (per unit)	<ul style="list-style-type: none"> • For the well owners: NA • For others farmers: 120NIS/hr
Beneficiaries	<ul style="list-style-type: none"> • 4 households (well and land owners) • 2 households (other farmers)
Working forces	<ul style="list-style-type: none"> • 27.7% are women (~10 workers) • 8.3% are children (~3 workers) • 36.1% are men (~13 workers)


Beneficiaries/ Workers representation charts		
Irrigation type	<ul style="list-style-type: none"> • 25 donums with drip irrigation • 60 donum with flood irrigation 	
Operator/s	Mohammad Nizar Abdul Jaleel (One of the owners of the land and the well)	
Operational Cost	<ul style="list-style-type: none"> • Fuel (Diesel): 12,850 NIS/year • Maintenance: 500 NIS/Month 	
Well Management	Owners	
Maintenance	Not maintained since a long time (the latest maintenance was increasing the depth from 110m to 145m)	
Contract Diagram		

D. Crop pattern*

Winter Season							
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Citrus	50	69	2178	Long Life	3	1000	500
Tomato	30	54	1100	140	4	300	100
Net benefit	28,000NIS/year						

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 40% exported to Israeli Market • 60% to West Bank Markets distributed, almost, equally to Jenin, Nablus, Ramallah, Bethlehem and Hebron markets. 													
	<p>Agricultural Crops Marketing</p>  <table border="1"> <caption>Agricultural Crops Marketing Distribution</caption> <thead> <tr> <th>Market</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Israeli Markets</td> <td>40%</td> </tr> <tr> <td>Bethlehem Markets</td> <td>12%</td> </tr> <tr> <td>Nablus Markets</td> <td>12%</td> </tr> <tr> <td>Ramallah Markets</td> <td>12%</td> </tr> <tr> <td>Hebron Markets</td> <td>12%</td> </tr> <tr> <td>Jenin Markets</td> <td>12%</td> </tr> </tbody> </table>	Market	Percentage	Israeli Markets	40%	Bethlehem Markets	12%	Nablus Markets	12%	Ramallah Markets	12%	Hebron Markets	12%	Jenin Markets
Market	Percentage													
Israeli Markets	40%													
Bethlehem Markets	12%													
Nablus Markets	12%													
Ramallah Markets	12%													
Hebron Markets	12%													
Jenin Markets	12%													

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Nizar Abdul Jaleel	25	3	3	0
Muhammad Abdul Jaleel	10	0	1	0
Jameel Abu Kana'an	20	7	8	3
Fadi Jameel	25	0	1	0

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	<ul style="list-style-type: none"> • Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-17/034	Rajeh Shaka'ah	Agricultural
	19-17/044	Muhamad Yousef Shaka'ah	Agricultural
	19-17/045	Hasan 'Abasi	Agricultural
	19-17/050	Muhamad Ahmad Abed	Agricultural
	19-17/051	Tawfeeq Zaydi	Agricultural
	19-17/057	'Atarah Mekarot No.1	Mekarot

H. Problems:

Management	None
Technical	All equipments are very old (since 1965) and need to be replaced

I. Needs/Wishes:

1	Replacement to electrical motor or replacement the existing motor with new one (120 HP)
2	Gearshift 5/6
3	New turbine (diameter: 8", 17turbine impellers)
4	The well needs pumping pipes 33mm /6"

Well Profile: 19-17/054

A. General Information

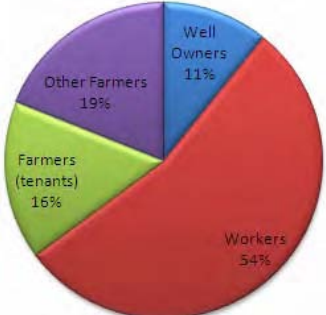
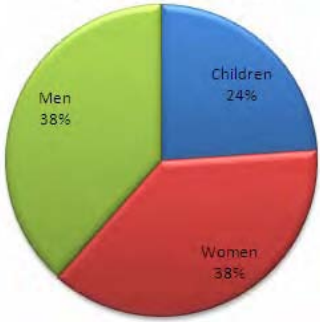
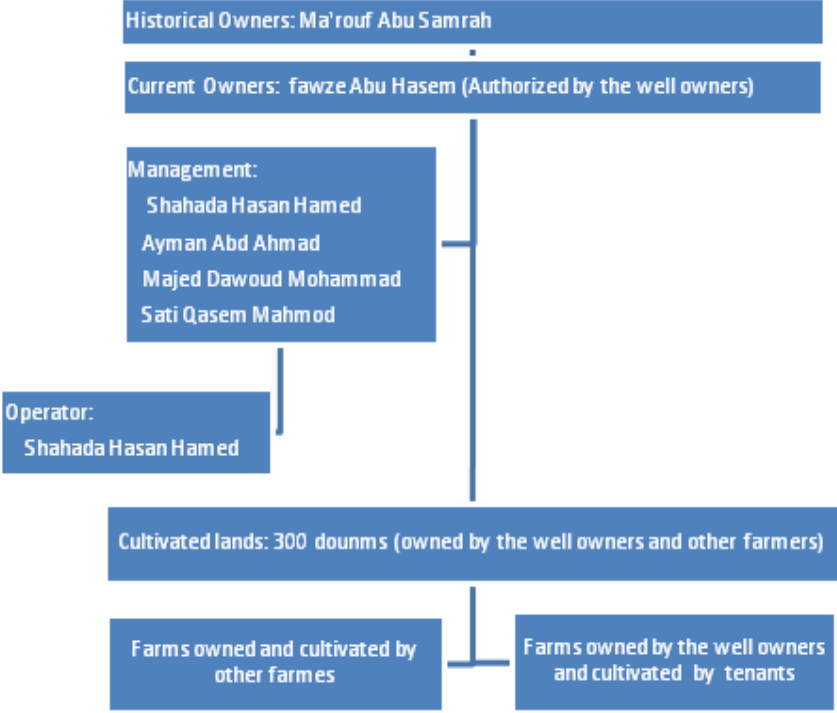
Well name	Ma'rouf Abu Samrah		
Well number	19-17/054		
Location	Al-Jiftilk, Jericho		
Coordinates	E 197600/E169150		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Shahada Hasan Hamed	45	Tenant
	Ayman Abed Ahmad	40	Farmer
	Majed Dawoud Mohammad	44	Farmer
	Sati Qasem Mahmud	44	Farmer

B. Historical Background

Owners (Authorized by the well owners)	Name	Owned land (Donum)	Ownership
	Ma'rouf Abu Samrah	150	100%
Drilling year	1962		
Drilling cost	NA		
Use	Agriculture Only		
Area of irrigable land	500 Donum		
Area of irrigated land	500 Donum		
Beneficiaries	<ul style="list-style-type: none"> Well owner: 1household Other farmers: 20 household 		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	6 NIS/hour		

C. Current Situation

Owners (Authorized by the well owners)	Name	Occupation	Owned land (Donum)	Ownership
	Fawze Abu Jasem	Framer	150	100%
Use	Agricultural use			
Well efficiency	Fair (evaluated by the interviewed persons and the well operator)			
Area of irrigable land	500 Donum			
Area of irrigated land	300 Dunums			
Pump fuel	Electricity (from the electrical network)			
Water selling unit	Pumping hour			
water cost (per unit)	25 NIS/Hr			
Beneficiaries	<ul style="list-style-type: none"> 4 households (land and well owners) 6 households (tenants of the well owner lands) 20 households (workers) 7 other Farmers. 			
Working forces	<ul style="list-style-type: none"> Women: 37.6% (~44 workers) Children: 23.9% (~28 workers) Men: 38.5% (~45 workers) 			

Beneficiaries/Workers representation charts	<p style="text-align: center;">Beneficiaries (Households)</p> 	<p style="text-align: center;">Working Force Vs Gender</p> 
Irrigation type	Mostly drip irrigation: 300 Donum	
Operator	Shahada Hasan Hamed	
Operational Cost	<ul style="list-style-type: none"> Operator: 1800 NIS/Month Fuel (Electricity): 10,000 NIS/Month Maintenance: 1000 NIS/Month 	
Well Management	<ul style="list-style-type: none"> Shahada Hasan Hamed Ayman Abd Ahmad Majed Dawoud Mohammad Sati Qasem Mahmod 	See Interviewed List for more details
Maintenance	Since five years ago	
Contract Diagram	 <pre> graph TD HO[Historical Owners: Ma'rouf Abu Samrah] --> CO[Current Owners: fawze Abu Hasem (Authorized by the well owners)] CO --> M[Management: Shahada Hasan Hamed, Ayman Abd Ahmad, Majed Dawoud Mohammad, Sati Qasem Mahmod] M --> O[Operator: Shahada Hasan Hamed] M --> CL[Cultivated lands: 300 donums (owned by the well owners and other farmers)] CL --> F1[Farms owned and cultivated by other farms] CL --> F2[Farms owned by the well owners and cultivated by tenants] </pre>	

D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Eggplants	100	169	2300	260	Open	3.5	700	300

Squash	80	86	881	105	covered	2.4	1300	450
Tomato	50	67	850	130	covered	5	300	100
Bean	70	86	788	150	Open	1	1500	100
Spring Season								
corn	80	86	750	100	Open	0.65	400	100
Net benefit	86,000 NIS/year							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 30% exported to Israeli markets • 28% to Jenin markets • 42% to Nablus markets
	<p style="text-align: center;">Agricultural Crops Marketing</p> <p style="text-align: center;">A pie chart titled 'Agricultural Crops Marketing' is divided into three segments. The top-left segment is green and labeled 'Jenin Markets 30%'. The top-right segment is blue and labeled 'Israeli Markets 30%'. The bottom segment is red and labeled 'Nablus Markets 40%'.</p>

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Jamal yousef Draghma	27	5	3	1
Saty Qasem Draghma	36	4	7	4
Awad S'ed Awad Abu Amer	30	5	5	6
Aeman Abd Ahmad	30	2	5	5
Nafez Da'ama	60	7	9	4
Majd Mohammad Dar'ama	40	7	2	6
Shahada Hamed Dra'ama	20	4	1	2
Omar Shahada Hassan	20	0	2	0
Saied Hamad	27	10	11	0

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	<ul style="list-style-type: none"> • Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-16/001	Ali Abedallah Damen	Agriculture
	19-16/008	Burhan Damen	Agriculture
	19-16/003	Ahmad Hashem zghayye	Agriculture
	19-16/004	Ahmad Hashem zghayye	Agriculture
	19-16/009	Nawwaf Damen	Agriculture
	19-16/010	Shaher Damen	Agriculture
	19-17/006	Adham Damen	Agriculture
19-17/010	Huseen Dra'i	Agriculture	

H. Problems:

Management	AN
Technical	<ul style="list-style-type: none">• Shortage of water due low pumping rate and due to the low efficiency of the existing facilities.• An old pump had been fallen at the bottom of the well hole• The pipes inside the well are very old and need to be replaced• Clogging problems in the well casing
Other problems	Due to the water shortage, conflict between the well tenant and the farmers as well as between farmers themselves.

I. Needs/Wishes:

1	20 hp submersible pump
2	40 meter pipes (inside the well)/5" with Columns 30mm

Well Profile: 19-17/055

A. General Information

Well name	Jawad Al-Masri		
Well number	19-17/055		
Location	Al –Jiftlik, Jericho		
Coordinates	E196150/N173400		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Jawad Al-Masry	70	Owner
	Osama Al-Masry	55	Owner
	Mu'aweya Al-Masry	60	Owner

B. Historical Background

Owner/s	Muhammad Jawad Al-Masri's Family
Drilling year	1980
Drilling cost	\$10,000
Use	Agriculture Only
Area of irrigable land	1000 Donum (owned by the well owner)
Area of irrigated land	<ul style="list-style-type: none"> • 500 Donum (owned and used by the well owner) • 500 Donum (owned by the well owner and cultivated by tenants)
Beneficiaries	47 households
Pump fuel	Diesel
Water selling unit	Pumping hour
Operational costs	30 NIS/pumping hour

C. Current Situation

Owner/s	Name	Occupation	Owned land (Donum)	Ownership (%)
	Ziad Ali Al Masri	Farmer	90	14.3
	Jawad Ali Al Masri	Farmer	90	14.3
	Nihad Ali Al Masri	Retired	90	14.3
	Mu'aweya Ali Al Masri	Doctor	90	14.3
	Mazen Ali Al Masri	Trader	90	14.3
	Riyadh Ali Al Masri	Doctor	90	14.3
	Osama Ali Al Masri	Farmer	90	14.3
Use	Agriculture Only			
Well Efficiency	Fair (evaluated by the interviewed persons)			
Area of irrigable land	1000 Donum (owned by the well owner, the tenants and other farmers)			
Area of irrigated land	635 Donums			
Pump fuel	Diesel			
Water selling unit	Pumping hour			
Water Cost (per unit)	111 NIS/pumping hour			
Beneficiaries	<ul style="list-style-type: none"> • 34 households (well and land owners) • 40 households (land tenants) • 20 households (other farmers) • 60 households (workers) 			
Working forces	<ul style="list-style-type: none"> • 47.3% are women (~61workers) 			

	<ul style="list-style-type: none"> • 18.6% are children (~24 workers) • 34.1% are men (~44 workers) 	
Beneficiaries/Workers representation charts	<p>Beneficiaries (Households)</p>	<p>Working Force Vs Gender</p>
Irrigation type	Mostly drip irrigation	
Operator	Muhammad Mahmoud Abu Jawdeh	
Operational Cost	<ul style="list-style-type: none"> • Fuel (Diesel): 8100 NIS/Month • Operator's salary: 1000 NIS/Month • Maintenance: 1200 NIS/Month 	
Well Management	<ul style="list-style-type: none"> • Osama Ali Al Masri • Jawad Ali Al Masri 	
Maintenance	Last year (but the well capacity did not improved)	
Contract Diagram		

D. Crop pattern*

Winter Season							
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Cucumber	25	180	405	90	6	800	2500

(Green House)							
Cucumber (Open)	70	193	990	135	4	2000	1000
Pepper	60	340	1940	340	10	1400	4000
Eggplants	100	290	2640	290	9	1000	3000
Bean	50	86	400	100	1	4000	1500
Tomato (Open)	70	260	850	160	4	800	1000
Tomato (Green House)	10	340	2530	340	15	1000	4000
Corn	70	71	900	90	1.5	1000	400
Squash	70	115	500	115	4	1800	800
Spring Season							
Pepper	10	260	1700	260	7	2000	5000
Bean	60	93	330	110	1	4000	1500
Cucumber	20	200	580	145	4	2000	1000
Squash	50	79	450	90	4	800	1000
Tomato	20	270	900	110	4	800	1000
Net benefit	1,171,500 NIS/year						

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 70% exported to Israeli Market • 15% Jericho Markets • 5% to international Markets • 10 to West Bank Markets (Jenin, Nablus, Ramallah, Bethlehem and Hebron markets).
	<p>Agricultural Crops Marketing</p> <p>The pie chart illustrates the distribution of agricultural crop marketing. The largest segment is Israeli Markets at 70%, followed by Jericho Markets at 15%, West Bank Markets (Jenin, Nablus, Ramallah, Bethlehem, and Hebron) at 10%, and International Markets at 5%.</p>

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Khalid Mahmoud Abu Joudeh	24	5	5	2
Muhamad Mahmoud Abu Joudeh	15	3	2	0
Ahmad Mahmoud Abu Joudeh	15	7	3	0
Anwar Mahmoud Abu Joudeh	15	2	3	0
Yazan Ohamah Al Masri	25	1	1	0
Bashar Mubark Yousef	20	2	0	1

Mubarak Yousef Bsharat	30	2	4	0
Ahmad Mustafa	13	6	1	1
Maher Salem Abu Mua'amer	30	1	1	2
Zaied Muhamad Bsharat	17	1	1	0
Basil Nimer	20	3	2	5
Amjad Ali Daraghmeh	20	1	3	0
Zuhaier Sa'aid Shawahneh	20	1	1	1
Abed al basit Muhamad Karem	20	5	1	2
Fysal Ahmad Sa'ad	15	1	1	2
Fares Ahmad Sa'ad	15	1	1	0
Qadree Qasem Daraghmeh	70	3	3	3
Basam Qadree Daraghmeh	70	1	1	3
Nai'l Mustafa Yousef	45	4	3	0
Sati Qasem	33	4	3	0
Ahmad Daraghmeh	80	5	2	0
Muhamad Abu Serbel	23	2	5	2

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	None		
Wells	Code	Name	Type
	19-17/007	Fathallah Al Masri	Agricultural
	19-17/032	Yazuralu No. 32	Abandoned
	19-17/033	Dya'a Saleh Abdo	Agricultural
	19-17/056	Mahmoud Damen	Agricultural

H. Problems:

Management	None
Technical	<ul style="list-style-type: none"> • The engine is very old with high consumption of oil and diesel • The pumping pipes have a large diameter and do not match with the pump capacity • The pump is very old and need to be exchanged • The irrigation network is very old and need to be maintained and expanded • Lack of money to rehabilitate and maintained the well equipments

I. Needs/Wishes:

1	Replacement to electrical motor or replacement the existing motor with new one.
2	Replacement of the pipes inside the well hole
3	Replacement the turbine and the turbine impellers
4	Expand and replacement the irrigation network (680m/8" and P.V.C pipes/4")

Well Profile: 19-17/056

A. General Information


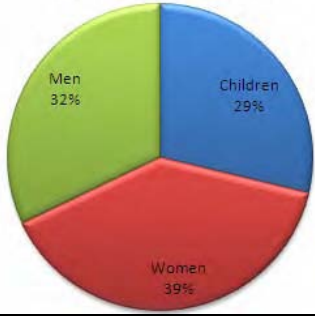
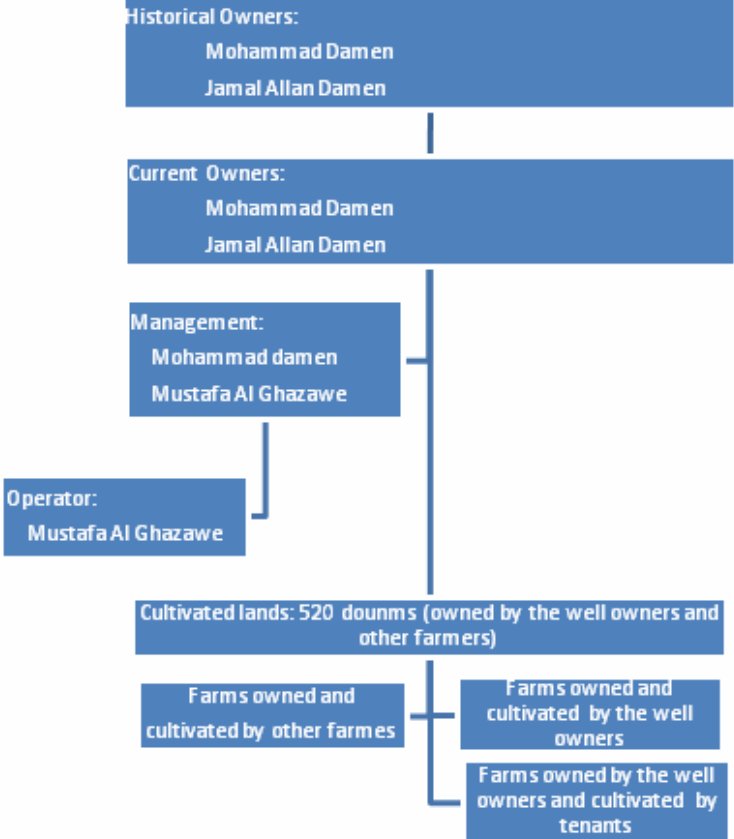
Well name	Mohammad Damen		
Well number	19-17/056		
Location	Al Jiftlik-Jericho		
Coordinates	E194600/N174100		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Mohammad damen	81	Owner
	Mustafa Al Ghazawe	50	Operator

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership
	Mohammad damen	200	66%
	Jamal Allan damen	200	34%
Drilling year	1986		
Drilling cost	120000 \$		
Use	Agriculture Only		
Area of irrigable land	400 Donum		
Area of irrigated land	400 Donum		
Beneficiaries	16 households		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	20 NIS/hour		

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership
	Mohammad damen	Framer	200	66.5%
	Jamal Allan damen	Framer	200	34%
Use	Agricultural use			
Well Efficiency	Good (evaluated by the interviewed persons and the well operator)			
Area of irrigable land	520 Donums			
Area of irrigated land	520 Dunums			
Pump fuel	Electricity/network			
Water selling unit	Pumping hour			
Water cost (per unit)	60 NIS/Hr			
Beneficiaries	<ul style="list-style-type: none"> Well owners: 24 households Land tenants: 12 households Other Farmers: 14 households Workers: 15 households 			
Working forces	<ul style="list-style-type: none"> Women: 39.2% (~94 workers) Children: 28.8% (~69 workers) Men: 32.1% (~77 workers) 			

Beneficiaries/Workers representation charts	<p style="text-align: center;">Beneficiaries (Households)</p> 	<p style="text-align: center;">Working Force Vs Gender</p> 
Irrigation type	<ul style="list-style-type: none"> • Drip irrigation: 390 Donum • Furrow irrigation: 130 Donum 	
Operator	Mustafa Al Ghazawe	
Operational Cost	<ul style="list-style-type: none"> • Operator: 1200 NIS/Month • Fuel (Electricity): 18000 NIS/Month • Maintenance: 3000 NIS/Month 	
Well Management	<ul style="list-style-type: none"> • Mohammad damen • Mustafa Al Ghazawe 	
Maintenance	No maintenance	
Contract Diagram		

D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Palm	200	58	1200	Long life	Open	0.8	13000	1500
Grape	50	159	840	Long life	Open	2	3000	700
Tomato	90	37	440	100	covered	6	500	100
Cucumber	90	62	540	105	covered	2	1500	500
Eggplants	90	94	1620	170	covered	3	1000	300
Net benefit	416,000 NIS/Year							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 10% exported to Israeli Market • 90% to West Bank Markets distributed, almost, equally to Jenin, Nablus, Ramallah, Bethlehem and Hebron markets.
	<p style="text-align: center;">Agricultural Crops Marketing</p> <p style="text-align: center;">West Bank Markets (Jenin, Nablus, Ramallah, Bethlehem, Hebron) 90%</p>

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Naser Masaeed	10	2	4	4
Mohamad Abu Salem	20	8	3	2
Sudqy Sa'eed	15	6	5	3
Al Hajj Ziad	20	9	3	3
Mohamad Kassab	15	6	3	4
Sameer Ahmad Thibian	15	4	5	6
Ibrahem Ahmad Thibian	10	2	2	2
Fawaz Tobasy	25	6	3	4
Zydan Abu Salama	18	4	5	4
Rafa' Hamdallah	8	5	5	5
Alla' Nasasra	-	8	2	3
Hasan nasasra	-	9	3	4
Waheb Nasasra	-	4	6	3
Maheob Nasasra	-	6	2	2
Abd Mustafa Ghazawe	-	6	4	3
Ahmad Kassab	-	2	6	6

Mohammad Assad	-	3	8	6
Omar Mohammad Agouri	-	4	8	5

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	<ul style="list-style-type: none"> Al Farah Channel (part of the above mentioned cultivated lands are irrigated from al far'ah spring channel) 		
Wells	Code	Name	Type
	19-17/023	Burhan Damen	Agriculture
	19-17/033	Dyaa' Saleh Abdo	Agriculture
	19-17/043	Abed Al Qader Abed	Agriculture
	19-17/046	Nasha'at Al Masri	Agriculture
	19-17/055	Jawad Al Masri	Agriculture
	19-17/058	Masawa No.1	Mekarot

H. Problems:

Management	none
Technical	Irrigation network need to be expanded

I. Needs/Wishes:

1	Replacement the existing pump with submersible pump (100HP).
2	Replacement the pipes in the depth 67-80 to casing.
3	Drill new well with depth 110m

Well Profile: 19-19/005A

A. General Information

Well name	Rafeeq Al Zua'bi		
Well number	19-19/005A		
Location	Ein Al Bahda, Bardalla, Tubas		
Coordinates	E198930/N197180		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Ayman Sa'ad Dababat	36	Tenant
	Aysar Sa'ad Dababat	33	Tenant

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership (%)
	Rafeeq Al Zua'bi	700	100
Drilling year	1961		
Drilling cost	NA		
Use	Agriculture Only		
Area of irrigable land	700 Donum		
Area of irrigated land	1700 Donum		
Beneficiaries	<ul style="list-style-type: none"> Well owner: 1 household Other farmers: 25 household 		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	10NIS/hr		

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership (%)
	Jamal Al Zua'bi	Immigrant	140	20
	Ghaze Al Zua'bi	Immigrant	140	20
	Faesi Al Zua'bi	Immigrant	140	20
	Yaseen Al Zua'bi	Immigrant	140	20
	Mostafa Al Zua'bi	Immigrant	140	20
Use	Agricultural use			
Well efficiency	Fair (evaluated by the interviewed persons)			
Area of irrigable land	1000 Donums			
Area of irrigated land	400 Dunums (cultivated by tenants)			
Pump fuel	Diesel			
Water selling unit	Pumping hour			
Water cost (per unit)	100 NIS/Hr			
Beneficiaries	<ul style="list-style-type: none"> 5 households (well and land owners) 12 households (land tenants) 6 households (workers) 			
Working forces	<ul style="list-style-type: none"> Women: 38.3% (~54 workers) Children: 31.9% (45 workers) Men: 30% (42 workers) 			

Beneficiaries/ Workers representation charts	<p>Beneficiaries (Households)</p> <p>Working Force Vs Gender</p>
Irrigation type	Mostly drip irrigation
Operator	Aysar Asa'ad Dababat
Operational Cost	<ul style="list-style-type: none"> Fuel (Electricity): 15,000 NIS/Month Maintenance: 3000 NIS/Month
Well Management	<ul style="list-style-type: none"> Ayman Sa'ad Dababat Aysar Asa'ad Dababat
Maintenance	Dose not maintained since long time
Contract Diagram	<pre> graph TD A[Historical Owner: Rafeeq Al Zua'bi] --> B[Current Owners: Jamal, Ghaze, Faesl, Yaseen and Mostafa Al Zua'bi] B --> C[Management: Ayman Sa'ad Dababat, Aysar Asa'ad Dababat] C --> D[Operator: Aysar Asa'ad Dababat] C --> E[Cultivated lands: 400 donoms (owned by the well owners and cultivated by tenants)] E --> F[Temporary Workers] </pre>

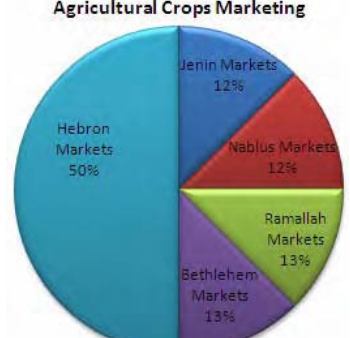
D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Corn	100	10	210	70	Open	1.2	1000	250
Eggplants	100	124	990	250	Open	4	500	200
Bean	38	170	330	98	Open	0.7	2500	500
Tomato	12	236	1230	162	Green House	20	1000	5000
Tomato	50	38	480	110	Open	4	500	200
Squash	100	19	253	140	Open	3	1200	500
Spring Season								

Corn	50	10	210	70	open	1.2	1000	250
Eggplants	100	124	990	250	open	4	500	200
Melon	100	12	400	100	open	3	2000	600
Net benefit	258,500 NIS/Year							

*numbers were estimated by the farmers from their experience

E. Market

Product marketing	<ul style="list-style-type: none"> • 40% to Jenin, Nablus, Ramallah and Bethlehem (10% for each) • 60% to Hebron Markets 											
	<p>Agricultural Crops Marketing</p>  <table border="1"> <caption>Agricultural Crops Marketing Distribution</caption> <thead> <tr> <th>Market</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Hebron Markets</td> <td>50%</td> </tr> <tr> <td>Jenin Markets</td> <td>12%</td> </tr> <tr> <td>Nablus Markets</td> <td>12%</td> </tr> <tr> <td>Ramallah Markets</td> <td>13%</td> </tr> <tr> <td>Bethlehem Markets</td> <td>13%</td> </tr> </tbody> </table>	Market	Percentage	Hebron Markets	50%	Jenin Markets	12%	Nablus Markets	12%	Ramallah Markets	13%	Bethlehem Markets
Market	Percentage											
Hebron Markets	50%											
Jenin Markets	12%											
Nablus Markets	12%											
Ramallah Markets	13%											
Bethlehem Markets	13%											

F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Ryad Bsharat	60	7	3	4
Sa'ad Ghaleb	75	5	4	4
Falah Daraghma	45	5	5	6
Ghaleb Foqaha'	35	7	5	6
Sa'ed Foqha'	20	2	1	1
Ahmah A'ainabor	35	9	3	7
Ziad Foqaha'	20	8	2	5
Tareq dababat	25	2	3	1
Hasan Abu Shaddad	20	3	6	1
Shamkh Dababat	20	2	3	3
Aysar Dababat	22	3	3	4
Ayman dababat	22	1	4	3

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	Code	Name	Type
	AQ/022	Al Qura'n	Agricultural
	AQ/026	Al Fatur	Agricultural
	AQ/029	Frata	Agricultural
	AQ/030A	Al Hima Al Fouqa	Agricultural & Domestic
	AQ/030B	Al Hima Al Tahta	Agricultural
	AQ/033	Qa'um	Agricultural
	AQ/034	Sa'eesafan	Agricultural
	AQ/035	Blaibel	Agricultural
	AQ/037	Al Saqut	Agricultural
	AQ/040	Al Hulwal	Agricultural

Wells	Code	Name	Type
	19-19/005B	Muhammad Khader	Agricultural
	19-19/006A	Sae'ed Abu Mansur	Agricultural
	19-19/006B	Sae'ed Abu Mansur	Agricultural
	19-19/007A	Ahmad Abu Khader	Agricultural
	19-19/009A	Muhammad Abed Al Rahman	Agricultural
	19-19/009B	Bardalla Village	Agricultural
	19-19/010	Bardalla No1	Mekarot
	19-19/011	Bardalla No2	Mekarot
	19-20/001A	Khursheed Mbaslat	Agricultural

H. Problems:

Management	NA
Technical	<ul style="list-style-type: none"> • Not sufficient Pumping rate • The operational costs are very high • Leakage is very high

I. Needs/Wishes:

1	Purchase pumping pipes 40m length, 6"diameter.
2	Purchase turbine 6"/17 impellers
3	Purchase 140 hp engine
4	Gear head 3/4
5	Irrigation pipe line 6", of 2000m length

Well Profile: 19-20/001A**A. General Information**

Well name	Khursheed Mbaslat		
Well number	19-20/001A		
Location	Bardalla, Tubas		
Coordinates	E194350/N200700		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Jawad Khursheed Mbaslat	40	Owner
	Ghalib Ibraheem Mbaslat	80	Owner

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership (%)
	Khursheed Mbaslat	50	2/3
	Ghalib Ibraheem Mbaslat	50	1/3
Drilling year	1965		
Drilling cost	\$15000		
Use	Agriculture Only		
Area of irrigable land	150 Donum		
Area of irrigated land	100 Donum		
Beneficiaries	<ul style="list-style-type: none"> • Well owner: 4 household • Other farmers: 5 household 		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	0.25 JD/hr		

C. Current Situation

The well stopped pumping in year 1991 due to high running and maintenance cost. At the same time the well is unfeasible in terms of profit return. The well depth is 130m deep, the irrigable land is available and it can be irrigate 250 donum.

D. Adjacent water sources

Spring	Qa'um Spring (AC/033)		
Wells	Code	Name	Type
	19-19/006A	Sae'ed Abu Mansur	Agricultural
	19-19/006B	Sae'ed Abu Mansur	Agricultural
	19-19/007A	Ahmad Abu Khader	Agricultural
	19-19/009A	Muhammad Abed Al Rahman	Agricultural
	19-19/009B	Bardalla Village	Agricultural
	19-19/010	Bardalla No1	Mekarot
	19-19/011	Bardalla No2	Mekarot

E. Problems:

Management	None
Technical	The equipments were out of order.
	Technically not working, needs full rehabilitation

F. Needs/Wishes:

1	Cleaning the well hole
2	Equipped the well with pump and all other equipments (turbine, pipes, etc)
3	Diesel Motor
4	Gear head 3/4
5	Conveyance line (500m length)

Well Profile: 20-17/019

A. General Information


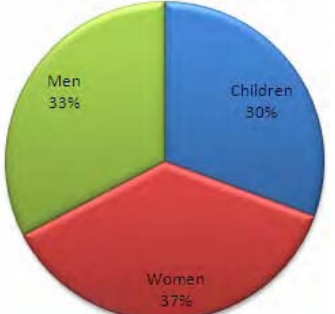
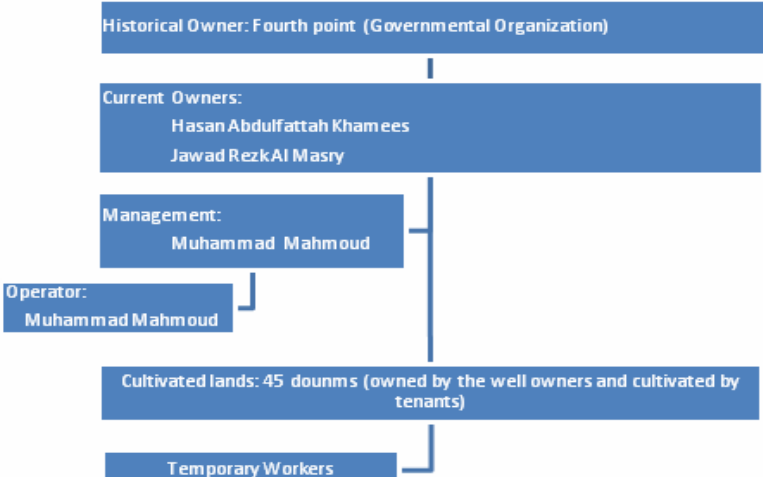
Well name	Jameel Abdul Fattah Khamees		
Well number	20-17/019		
Location	Marj Ghazal, Zebydat, Jericho		
Coordinates	E200020/N175150		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Mohammad Hasan Abdulfattah	40	Farmer
	Hasan Abdulfattah	65	Owner

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership (%)
	Fourth point (Governmental organization)	120	100
Drilling year	1958		
Drilling cost	NA		
Use	Agriculture Only		
Area of irrigable land	120 Donum		
Area of irrigated land	120 Donum		
Beneficiaries	8 households		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	7 NIS/year		

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership (%)
	Hasan Abdulfattah Khamees	farmer	NA	50
	Jawad Rezk Al Masry	farmer	40	50
Use	Agricultural use			
Well Efficiency	Fair (evaluated by the interviewed persons)			
Area of irrigable land	45 Donum			
Area of irrigated land	45 Dunum (owned by the well owners and cultivated by tenants)			
Pump fuel	Electricity/generator			
Water selling unit	Pumping hour			
Water cost (per unit)	15 NIS/Hr			
Beneficiaries	<ul style="list-style-type: none"> • 2 households (well and land owners) • 3 households (land tenants) • 2 households (workers) 			
Working forces	<ul style="list-style-type: none"> • Women: 36.7% (~18 workers) • Children: 30.6% (~15 workers) • Men: 32.7% (~16 workers) 			

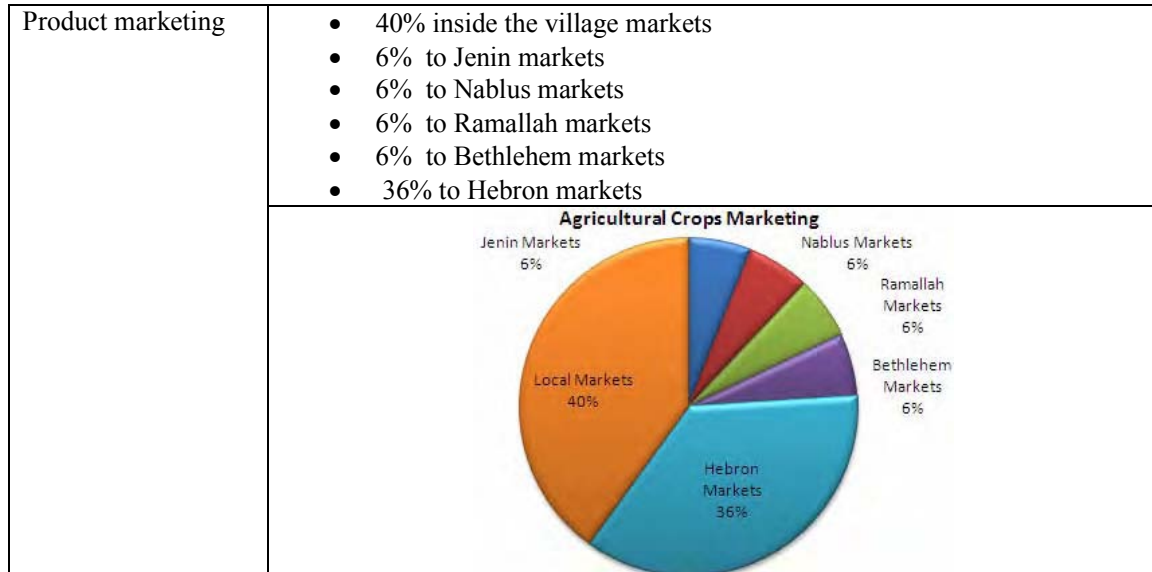
Beneficiaries/Workers representation charts	<p style="text-align: center;">Beneficiaries (Households)</p> 	<p style="text-align: center;">Working Force Vs Gender</p> 
Irrigation type	Mostly drip irrigation	
Operator	Muhammad Mahmoud	
Operational Cost	<ul style="list-style-type: none"> Fuel (Electricity): 12 NIS/pumping hour Maintenance: 100 NIS/Month 	
Well Management	<ul style="list-style-type: none"> Muhammad Mahmoud Zebedan 	
Maintenance	Dose not maintained since long time	
Contract Diagram		

D. Crop pattern*

Winter Season								
Crop Name	Cropped Area (don)	Working Days (day/don)	Required water (m3/don)	Life (days)	Type	Production (Ton/don)	Average Income (NIS/Ton)	Net Benefit (NIS/don)
Grape	10	77	1543	Long life	Open	1.5	1000	800
Tomato	35	13	305	90	Open	3	500	200
Spring Season								
Corn	45	10	300	60	Open	1	100	200
Net benefit	24,000 NIS/year							

*numbers were estimated by the farmers from their experience

E. Market



F. Farmers List:

Farmer Name	Area of Cultivated Land (Donum)*	No. of Female workers	No. of male workers	No. of children workers
Mahmod Mohammad Ali Zbydat	10	6	4	4
Ranze Mahmud	10	5	4	3
Mohammad Mahmud Ali	10	4	6	5
Hasan Abdulfattah Hamees	30	3	2	3

*Cultivated areas are estimated by farmers

G. Adjacent water sources

Springs	None		
Wells	Code	Name	Type
	19-17/020	Marj Na'jah 3B	Agricultural
	19-17/029	Arqaman No. 29	Mekarot
	20-17/016	Sulyman Saleh	Agricultural
	20-17/018	Mahmoud Ali Salem	Agricultural

H. Problems:

Management	None
Technical	None

I. Needs/Wishes:

None

Well Profile: 20-17/022**A. General Information**

Well name	Sulyman Al Saleh		
Well number	20-17/022		
Location	Marj Na'ja, Jericho		
Coordinates	E201300/N178400		
Data source/ Interviewed Persons	Name	Age	Relation with Well
	Husen Saleh Daraghma	25	Owner
	Saleh Sulyman Daraghma	50	Owner

B. Historical Background

Owners	Name	Owned land (Donum)	Ownership (%)
	Sulyman Saleh Daraghma	500	100
Drilling year	1962		
Drilling cost	7000 \$		
Use	Agriculture Only		
Area of irrigable land	500 Donum		
Area of irrigated land	500 Donum		
Beneficiaries	<ul style="list-style-type: none"> • 3 households (well owners) • 13 households (other framers and workers) 		
Pump fuel	Diesel		
Water selling unit	Pumping hour		
Water cost (per unit)	10 NIS/hr		

C. Current Situation

Owners	Name	Occupation	Owned land (Donum)	Ownership (%)
	Saleh Sulyman Al Saleh	farmer	125	25
	Hashem Sulyman Al Saleh	employee	125	25
	Hassan Sulyman Al Saleh	employee	125	25
	Salah Sulyman Al Saleh	farmers	125	25
Use	Agricultural only			
Area of irrigable land	500 Dounms			
The well stopped working in the year of 2005 due to completely failure in the well equipments.				

D. Adjacent water sources

Springs	Code	Name	Type
	NA	NA	NA
Wells	Code	Name	Type
	NA	NA	NA

E. Problems:

Management	None
Technical	The well didn't work since 2005 due to complete failure in the well equipments

F. Needs/Wishes:

1	Complete rehabilitation of the well and the irrigation network.
---	---

Inventory Sheets
Baseline Survey for Groundwater Wells
In Jordan Rift Valley, The West Bank

Japan international Cooperation Agency (JICA) would be most honor to have opportunity to cooperate with Palestinian people. In order to study on Water Resources Development and Management in Jordan River Rift Valley in the West Bank, it is necessary for us to understand current situation of the wells as well as the inhabitants. it would be very appreciated if you would fill the points below. Information you give us will be analyzed as quantitative data and be utilized for the feasibility study. We hope that you would fill the points without skipping and would enjoy conversation with enumerator as well, many thanks.

General information about the questionnaire

Questionnaire no.:

Surveyor: Tele./Mobile no.

Date:

Time:

Name(s) of respondent(s):					
	Name	Age	Sex	Relation	Tele./Mobile no.
1					
2					
3					
4					
5					

1 General information about the well

1.1 Well code 1.2 Well name

1.3 Well location

1.3.1 Coordinates 1.3.2 Village/Community

East: Name:

North: Code:

1.3.3 Governorate

Name:

Code:

2 Historical data

- 2.1 Year of establishment:
- 2.2 Establisher(s)
- (1) Individual/Family (2) Farmers union (3) Village Council/Municipality
- (4) Local organization (5) Governmental organization

2.3

Name(s) of establisher(s)				
	Name	Share(%)	Tele./Mobile no.	Land area (dunum)
1				
2				
3				
4				

5				
6				
7				

2.4 Purpose of establishment
 (1) Domestic use (2) Agricultural use (3) Both agricultural and domestic use

2.5 Establishment cost: \$US

2.6 Area of irrigable land when established dunum
 2.7 Area of irrigated land when established (owned by the establishers) dunum
 2.8 Area of irrigated land when established (owned by other families) dunum
 2.9 No. of families benefiting when established (from the establishers) family
 2.10 No. of families benefiting when established (other than the establishers) family

2.11 The pump was operated using (when established):
 (1) Electricity/network (2) Electricity/generator (3) Diesel

2.12 Pump capacity when established: m³/yr
 2.13 Quantity of permissible abstraction quota: m³/yr
 2.14 Actual quantity abstracted when abstracted: m³/yr
 Quantity used for agricultural purposes: m³/yr

2.15 Water distribution/selling system when established:
 Owners: (1) Based on quantity (m³) (2) Based on pumping time (3) Based on owned share
 Others: (1) Based on quantity (m³) (2) Based on pumping time

2.16 Water price when established
 per m³ (domestic): NIS/m³
 per pumping hour (domestic): NIS/hr
 per m³ (agriculture): NIS/m³
 per pumping hour (agriculture): NIS/hr

2.17 Water quality
 Chloride (Cl): mg/l
 Nitrate (NO₃): mg/l

3 **Current data (2006-2007)**

3.1 Owner(s):
 (1) Individual/Family (2) Famers union (3) Village Council/Municipality
 (4) Local organization (5) Governmental organization

3.2 About the owner(s)

	Name	Job	Tele./Mobile no.	Land area (dunum)	e-mail	Share (%)
1						
2						
3						
4						
5						

6						
7						
8						
9						
10						
11						
12						

3.3 Evaluation of current well efficiency:
 (1) High efficiency (2) Efficient (3) Low efficiency (4) Doesn't operate

3.4 Well operator(s):
 Name:

 Tele. no.:

 Mobile:

 Relation with well owner(s):
 (1) Employee (2) Farmer (3) Owner (4) Tenant (5) Other: _____

3.5 The well is operated by:
 (1) Owner(s) (2) One of the owners (by elected/appointed)
 (3) Elected union from the farmers and well owners (4) Employee appointed by the owner(s)

3.6 Well maintenance:
 (1) Within the previous year (2) Within previous 5 years
 (3) More than 5 years ago (4) Has not been repaired for a long time

3.7 Operation costs:
 Management costs:

 NIS/month
 Operator:

 NIS/month
 Electricity/Diesel:

 NIS/month
 Maintenance:

 NIS/month

3.8 Current purpose of use:
 (1) Domestic use (2) Agricultural use (3) Both agricultural and domestic use

3.10 The pump operates by:
 (1) Electricity/network (2) Electricity/generator (3) Diesel

3.11 Current pump capacity:

 m³/yr
 3.12 Permitted quota (2006)

 m³/yr
 3.13 Actual abstraction (2006)

 m³/yr

3.14 Monthly abstraction for agricultural use (2005/2006):

October: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³			April: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³		
November: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³			May: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³		
December: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³			June: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³		
January: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³			July: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³		
February: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³			August: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³		
March: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³			September: <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td> </td></tr></table> m ³		

3.15 Monthly abstraction for domestic use (2005/2006):

October:	<input type="text"/>	m ³	April:	<input type="text"/>	m ³
November:	<input type="text"/>	m ³	May:	<input type="text"/>	m ³
December:	<input type="text"/>	m ³	June:	<input type="text"/>	m ³
January:	<input type="text"/>	m ³	July:	<input type="text"/>	m ³
February:	<input type="text"/>	m ³	August:	<input type="text"/>	m ³
March:	<input type="text"/>	m ³	September:	<input type="text"/>	m ³

- 3.16 Current water distribution/selling system:
 Owners: (1) Based on quantity (m³) (2) Based on pumping time (3) Based on owned share
 Others: (1) Based on quantity (m³) (2) Based on pumping time

- 3.17 Current water price:
 per m³ (domestic): NIS/m³
 per pumping hour (domestic): NIS/hr
 per m³ (agriculture): NIS/m³
 per pumping hour (agriculture): NIS/hr

- 3.18 Water quality
 Chloride (Cl): mg/l
 Nitrate (NO₃): mg/l

- | | | |
|--|----------------------|--------|
| 3.19 Area of irrigable land | <input type="text"/> | dunum |
| 3.20 Area of irrigated land (owned and cultivated by the well owners) | <input type="text"/> | dunum |
| 3.21 Area of irrigated land (owned by the well owners and cultivated by tenants) | <input type="text"/> | dunum |
| 3.22 Area of irrigated land (owned by other families) | <input type="text"/> | dunum |
| 3.23 No. of families directly benefiting from the well (well owners) | <input type="text"/> | family |
| 3.24 No. of families indirectly benefiting from the well (well owners) | <input type="text"/> | family |
| 3.25 No. of families benefiting from well owner's land | <input type="text"/> | family |
| 3.26 No. of benefiting families (other than well owners) | <input type="text"/> | family |
| 3.27 No. of families benefiting from work in the agricultural sector | <input type="text"/> | family |
| 3.28 No. of well owner families that work in agriculture | <input type="text"/> | family |
| 3.29 No. of families that work in agriculture other than the well owners | <input type="text"/> | family |
- 3.30 Percentage of females working in agriculture
 Less than 25% 25-50% 50-75% More than 75%
- 3.31 Percentage of children working in agriculture
 Less than 25% 25-50% 50-75% More than 75%

- 3.32 Area of land irrigated by:
- | | | | |
|---|-----------|----------------------|-------|
| 1 | Drip | <input type="text"/> | dunum |
| 2 | Sprinkler | <input type="text"/> | dunum |
| 3 | Flooding | <input type="text"/> | dunum |
| 4 | Rainfed | <input type="text"/> | dunum |

- 3.33 Data about crops (for the previous agricultural season):
 Winter season (October-March)

	Crop	Area (dun)	Growing period (GP, day)	Avg water use during GP (m3/d/dun)	Avg. work days during GP (day/week/dun)	Prod. period (day)	Avg. work days during GP (day/week/dun)	Avg. work days during prod. (day/week/dun)	Type (rainfed, open, green house)	Prod. (ton/season/dun)	Avg. price (NIS/ton)	Avg. net benefit (NIS/dun/ton)
1				/	/		/	/				
2				/	/		/	/				
3				/	/		/	/				
4				/	/		/	/				
5				/	/		/	/				
6				/	/		/	/				
7				/	/		/	/				
8				/	/		/	/				
9				/	/		/	/				
10				/	/		/	/				

Spring season (April-July)

	Crop	Area (dun)	Growing period (GP, day)	Avg water use during GP (m3/d/dun)	Avg. work days during GP (day/week/dun)	Prod. period (day)	Avg. work days during GP (day/week/dun)	Avg. work days during prod. (day/week/dun)	Type (rainfed, open, green house)	Prod. (ton/season/dun)	Avg. price (NIS/ton)	Avg. net benefit (NIS/dun/ton)
1				/	/		/	/				
2				/	/		/	/				
3				/	/		/	/				
4				/	/		/	/				
5				/	/		/	/				
6				/	/		/	/				
7				/	/		/	/				
8				/	/		/	/				
9				/	/		/	/				
10				/	/		/	/				

Summer season (August-September)

	Crop	Area (dun)	Growing period (GP, day)	Avg water use during GP (m3/d/dun)	Avg. work days during GP (day/week/dun)	Prod. period (day)	Avg. work days during GP (day/week/dun)	Avg. work days during prod. (day/week/dun)	Type (rainfed, open, green house)	Prod. (ton/season/dun)	Avg. price (NIS/ton)	Avg. net benefit (NIS/dun/ton)
1				/	/		/	/				
2				/	/		/	/				
3				/	/		/	/				
4				/	/		/	/				
5				/	/		/	/				
6				/	/		/	/				
7				/	/		/	/				
8				/	/		/	/				

9				/	/		/	/				
10				/	/		/	/				

3.34 Marketed agricultural products (If more than one choice specify percentage)

(1) Directly to consumer (village/community)	percentage		%
(2) Local market/inside Green Line	percentage		%
(3) Local market/in same Governorate	percentage		%
(4) Local market/Gaza	percentage		%
(5) Export overseas	percentage		%
(6) Local market/governorates of the West Bank	percentage		%

3.35 Within the local market, the agricultural products are distributed among the West Bank Governorates as follows:

Crop	Product marketed (tons)					
	Jenin	Nablus	Ramallah	Bethlehem	Jericho	Hebron

3.35 The well management team are members of the following local/national organizations:

3.35.1 Governmental organizations

A

B

3.35.2 Non-governmental organizations

A

B

3.35.3 Vocational institutions

A

B

3.35.4 Other(s)

A

B

C

3.36 The well committee includes:

	Name	Occupation	Relation (Owner/farmer/other)	Title	Address
1					
2					
3					
4					
5					
6					
7					
8					
9					

10					
11					

3.37 The farmers are:

	Name (head of family)	Area of cultivated land	Area of cultivable land	Number of Workers			Owner/ Other	Tele./ Mobile
				Females	Males	Children (less than 16)		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

3.38 Problems/Weaknesses in the well management system:

1	
2	
3	
4	
5	

3.39 Technical problems/weaknesses in well:

1	
2	
3	
4	
5	

3.40 Problems/Weaknesses of the beneficiaries:

1	
2	
3	
4	
5	

3.41 Wishes/recommendations/needs:

1	
2	
3	
4	
5	