

Table 1-5 Breakdown of Construction Schedule and Costs related to Agricultural Infrastructure

Description	Unit Cost (LE)		1999		2000		2001		Total (10 ⁶ LE)			
	F.C.	L.C.	Qty	F.C.	L.C.	Qty	F.C.	L.C.	F.C.	L.C.		
			Quantity			Unit						
Irrigation Canal Main B=12.0 11.5 11.0 9.0 5.5 5.0 4.5 4.0 3.5 3.0	738	2,028	1,200	886	2,434	m	1,200	886	2,434	886	2,434	
	728	2,004	5,550	4,040	11,122	m	5,550	4,040	11,122	4,040	11,122	
	720	1,983	13,600	9,792	26,969	m	13,600	9,792	26,969	9,792	26,969	
	687	1,899	6,700	4,603	12,723	m	6,700	4,603	12,723	4,603	12,723	
	617	1,726	1,250	771	2,158	m	1,250	771	2,158	771	2,158	
	609	1,705	2,450	1,492	4,177	m	2,450	1,492	4,177	1,492	4,177	
	600	1,685	18,300	10,980	30,836	m	18,300	10,980	30,836	10,980	30,836	
	484	1,390	2,700	1,307	3,753	m	2,700	1,307	3,753	1,307	3,753	
	482	1,383	2,000	964	2,766	m	2,000	964	2,766	964	2,766	
	472	1,360	3,050	1,440	4,148	m	3,050	1,440	4,148	1,440	4,148	
Branch 2.0-2.5 1.0-2.5 1.0-2.0 1.0-1.5	457	1,321	14,500	6,627	19,155	m	14,500	6,627	19,155	6,627	19,155	
	220	640	39,040	3,300	9,600	m	15,000	3,300	9,600	24,040	5,289	15,336
	200	643	24,160	3,956	10,790	m	16,780	3,956	10,790	7,380	1,476	4,745
	173	573	66,200	5,564	18,428	m	32,160	5,564	18,428	6,080	1,052	3,484
	142	485	342,400	26,815	91,587	m	188,840	26,815	91,587	43,140	5,126	20,923
	143	512	17,920	1,419	5,079	m	9,920	1,419	5,079	2,563	9,175	
	134	486	50,880	858	3,110	m	24,180	858	3,110	6,818	24,727	31,545
	47	257	168,240	3,006	16,438	m	63,960	3,006	16,438	7,908	43,238	51,146
	45	249	238,550	5,169	28,600	m	82,260	5,169	28,600	10,736	59,402	70,138
	216	576	44,600	3,888	10,368	m	26,600	3,888	10,368	9,634	25,690	35,324
Bridge L=30m L=20m L=10m	65,940	125,177	45 Nos.	1,451	2,754		15	989	1,878	8	528	1,001
	46,489	88,392	29 Nos.	651	1,237		9	418	796	6	279	530
	26,725	51,025	104 Nos.	1,363	2,602		34	909	1,735	19	508	969
	74,457	111,586	3 Nos.	149	223		2	149	223	1	74	112
Division Work 2 vents 1 vent	43,807	69,859	92 Nos.	2,322	3,703		30	1,314	2,096	9	394	629
	7,201	10,839	549 Nos.	2,287	3,458		159	1,145	1,723	71	511	770
Check Gate 3 vents 2 vents 1 vent	394,279	206,510	6 Nos.	789	413		4	1,577	826	2,366	1,239	3,605
	272,462	156,240	22 Nos.	2,997	1,719		11	2,997	1,719	5,994	3,438	9,432
Tail-end Spillway	118,016	56,387	144 Nos.	9,205	4,398		48	5,665	2,707	18	2,124	1,015
	6,952	15,518	92 Nos.	368	822		29	202	450	10	70	155
Siphon 2 rows, L=600m	931,676	1,804,440	1 Nos.	932	1,804		1	932	1,804	932	1,804	
	40	160	111,000 Fed.	2,180	8,722		36,050	1,442	5,768	818	3,270	4,440
Shelterbelts B=50m	1,285	9,294	152 km	96	697		49	63	455	36	260	195
				96,564	277,996			79,773	233,086	24,582	77,325	200,919
Total (10 ⁶ LE)												

Table I-6 Cost Estimation and Investment Plan of On-farm Irrigation Facilities

Description	Qty	Unit	Foreign		Local		Remarks
			Rate (LE)	Cost (LE)	Rate (LE)	Cost (LE)	
1. Small Scale & Graduates							
Small Scale Farms	16650	fed	2610	43457307	3113	51837345	
Graduate (Vegetables+fruit)	5550	fed	2822	15663199	3531	19557176	
Graduate (Vegetables+Livestock)	5550	fed	2611	14493588	3117	17300241	
Sub Total	27750	fed		73614094		88734762	
2. Small Scale Investors							
Vegetables and Beef Cattle	8325	fed	3914	32580201	3687	30696706	
Vegetables and Fruits	8325	fed	2607	21700259	2660	22143748	
Sub Total	16650	fed		54280470		52840454	
3. Large Scale Investors							
Land Use Crops	16650	fed	4100	73256151	3565	59360167	
Dairy and Beef Cattle (Fixed Sprinkler)	16650	fed	4072	67790482	2949	49092926	
Dairy and Beef Cattle (Center Pivot)	16650	fed	2072	34501803	1393	23156559	
Fruits	16650	fed	1793	29856049	1794	25863129	
Sub Total	66600	fed		205404486		161508181	
4. Total On-Farm Irrigation Cost	111600	fed		333296050		306683397	
Cost per Net Feddan				3003		2730	
5. Investment Plan							
Investment in 2001							
Small Scale and Graduate	100	%		73614000		82735000	
Small Scale Investors	30	%		16284000		15852000	
Large Scale Investors	30	%		61621000		48452000	
Sub Total				151519000		153039000	
Investment in 2002							
Small Scale and Graduate	0	%		0		0	
Small Scale Investors	70	%		37996000		36988000	
Large Scale Investors	70	%		149783000		113056000	
Sub Total				181779000		150044000	

Table I-7 Cost Estimation of Small Scale Farms (Gross 103, Net 100 feddans)

Description	Qty	Unit	Foreign		Local		Remarks
			Rate (LE)	Cost (LE)	Rate (LE)	Cost (LE)	
1. Land Smoothing	25	fed	33.75	844	101.25	2531	Water Area to be Smooth
2. Inner Road (B-1a)	12244	sqm	0.01	153	0.24	2908	Compacted
3. Night Storage							
Excavation	949	cum	0.54	510	1.61	1533	
Embankment	475	cum	0.65	309	1.95	926	
Concrete Lining (t=12cm)	187	cuw	60.00	11220	140.00	26180	
Concrete Pipe (D300mm)	26	m	13.89	276	32.20	644	
Slide Gate (D300mm)	1	No.	2070	2070	2530	2530	
Intake Box (Concrete)	1	LS	1225	1225	2275	2275	
4. Boosting Pump Station	1	LS		62920		51260	Pump 2+1
5. Media Filter (210 m3/hour)	1	LS	1410	1410	3290	3290	
6. Distribution Pipes							
PVC 280mm	73	m	47.85	3493	39.15	2853	6 bar
PVC 250mm	149	m	39.50	5737	31.50	4694	6 bar
PVC 200mm	149	m	33.55	4999	27.45	4090	6 bar
PVC 160mm	149	m	24.75	3688	20.25	3017	6 bar
PVC 125mm	149	m	18.70	2786	15.30	2280	6 bar
PVC 110mm	745	m	16.50	12293	13.50	10058	6 bar
PVC 90mm	2900	m	14.30	41470	11.70	33930	6 bar
Hydrant (3")	40	No.	20.40	816	47.60	1904	
Fittings	10	%		7528		6283	
7. Sprinkler Irrigation Equipment							
Aluminium Pipe 3" 1-6m	330	No.	28.20	9306	18.80	6204	
Aluminium Pipe 3" 1-9m	50	No.	40.80	3672	27.20	2448	
Quick Coupler 3"	420	No.	12.00	5040	8.00	3360	
Sprinkler 30RB	180	No.	22.40	4032	9.60	1728	
Riser Pipe	180	No.	7.70	1386	3.30	594	
Fittings (Elbow, Endplug)	5	%		1172		717	
8. Drip Irrigation Equipment							
PVC pipe (D50mm)	4350	m	1.09	4720	2.02	8765	
PE hose (D16mm)	205900	m	0.12	25326	0.29	35093	
Emitter 4l/hour	411800	No.	0.02	6177	0.04	14413	
Control Head (5.25m3/hour)	30	No.	800	24000	1200	36000	Water filter & others
9. Minor Works (% of Total)	5	%		12429		14826	
Total Cost				261005		311335	
Cost per Net Feddan				2610		3113	

Table I-8 Cost Estimation of Graduate Farms: Vegetable + Fruit (Gross 103, Net 100 feddans)

Description	Qty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
1. Land Smoothing	25	fed	33.75	844	101.25	2531	Quarter Area to be Smooth
2. Inner Road (8=4m, Gravel paved)	12244	sqm	0.01	153	0.24	2908	Compacted
3. Night Storage							
Excavation	1035	cum	0.51	556	1.61	1669	
Embankment	518	cum	0.65	337	1.95	1010	
Concrete Lining (t=12cm)	188	cum	60.00	11280	140.00	26320	
Concrete Pipe (D300mm)	20	m	13.80	276	32.20	644	
Slide Gate (D300mm)	1	No.	2070	2070	2530	2530	
Intake Box (Concrete)	1	LS	1225	1225	2275	2275	
4. Boosting Pump Station	1	LS		62920		51260	Pump 2=1
5. Media Filter (210 m3/hour)	1	LS	1410	1410	3290	3290	
6. Distribution Pipes							
PVC 280mm	73	m	47.85	3493	39.15	2858	6 bar
PVC 250mm	149	m	38.50	5737	31.50	4694	6 bar
PVC 200mm	149	m	33.55	4999	27.45	4090	6 bar
PVC 160mm	149	m	24.75	3688	20.25	3017	6 bar
PVC 125mm	149	m	18.70	2786	15.30	2280	6 bar
PVC 110mm	745	m	15.50	12293	13.50	10058	6 bar
PVC 90mm	2900	m	14.30	41470	11.70	33930	6 bar
Hydrant (3")	40	No.	20.40	816	47.60	1904	
Fittings	10	%		7528		6283	
7. Sprinkler Irrigation Equipment							
Aluminium Pipe 3" 1=6m	330	No.	28.20	9306	18.80	6204	
Aluminium Pipe 3" 1=9m	90	No.	40.80	3672	27.20	2448	
Quick Coupler 3"	420	No.	12.00	5040	8.00	3360	
Sprinkler 30RB	180	No.	22.40	4032	9.60	1728	
Riser Pipe	180	No.	7.70	1386	3.30	594	
Fittings (Elbow, Endplug)	5	%		1172		717	
8. Drip Irrigation Equipment							
PVC pipe (D50mm)	5800	m	1.09	6293	2.02	11687	
PE hose (D16mm)	274500	m	0.12	33764	0.29	78782	
Emitter 4l/hour	549100	No.	0.02	8237	0.04	19219	
Control Head (5.25m3/hour)	40	No.	800	32000	1200	48000	Water filter & others
9. Minor Works (% of Total)	5	%		13439		16814	
Total Cost				282220		353102	
Cost per Net Feddan				2822		3531	

Table I-9 Cost Estimation of Graduate Farms: Vegetable + Livestock (Gross 103, Net 100 feddans)

Description	Qty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
1. Land Smoothing	25	fed	33.75	844	101.25	2531	Quarter Area to be Smooth
2. Inner Road (8=4m, Gravel paved)	12244	sqm	0.01	153	0.24	2908	Compacted
3. Night Storage							
Excavation	1035	cum	0.54	556	1.61	1669	
Embankment	518	cum	0.65	337	1.95	1010	
Concrete Lining (t=12cm)	188	cum	60.00	11280	140.00	26320	
Concrete Pipe (D300mm)	20	m	13.80	276	32.20	644	
Slide Gate (D300mm)	1	No.	2070	2070	2530	2530	
Intake Box (Concrete)	1	LS	1225	1225	2275	2275	
4. Boosting Pump Station	1	LS		62920		51260	Pump 2=1
5. Media Filter (210 m3/hour)	1	LS	1410	1410	3290	3290	
6. Distribution Pipes							
PVC 280mm	73	m	47.85	3493	39.15	2858	6 bar
PVC 250mm	149	m	38.50	5737	31.50	4694	6 bar
PVC 200mm	149	m	33.55	4999	27.45	4090	6 bar
PVC 160mm	149	m	24.75	3688	20.25	3017	6 bar
PVC 125mm	149	m	18.70	2786	15.30	2280	6 bar
PVC 110mm	745	m	15.50	12293	13.50	10058	6 bar
PVC 90mm	2900	m	14.30	41470	11.70	33930	6 bar
Hydrant (3")	40	No.	20.40	816	47.60	1904	
Fittings	10	%		7528		6283	
7. Sprinkler Irrigation Equipment							
Aluminium Pipe 3" 1=6m	330	No.	28.20	9306	18.80	6204	
Aluminium Pipe 3" 1=9m	90	No.	40.80	3672	27.20	2448	
Quick Coupler 3"	420	No.	12.00	5040	8.00	3360	
Sprinkler 30RB	180	No.	22.40	4032	9.60	1728	
Riser Pipe	180	No.	7.70	1386	3.30	594	
Fittings (Elbow, Endplug)	5	%		1172		717	
8. Drip Irrigation Equipment							
PVC pipe (D50mm)	4350	m	1.09	4720	2.02	8765	
PE hose (D16mm)	205900	m	0.12	25326	0.29	59093	
Emitter 4l/hour	411800	No.	0.02	6177	0.04	14413	
Control Head (5.25m3/hour)	30	No.	500	24000	1200	36000	Water filter & others
9. Minor Works (% of Total)	5	%		12436		14844	
Total Cost				261146		311716	
Cost per Net Feddan				2611		3117	

Table I-10 Cost Estimation of Small Scale Investors: Vegetable + Beef Catife (Gross 103, Net 100 feddans)

Description	Qty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
1. Land Smoothing	25	fed	33.75	844	101.25	2531	Quarter Area to be Smooth
2. Inner Road (B=4m, Gravel paved)	9924	sqm	0.01	124	0.24	2357	Compacted
3. Night Storage							
Excavation	1117	cum	0.54	600	1.61	1801	
Embankment	558	cum	0.65	363	1.95	1088	
Concrete Lining (t=12cm)	200	cum	60.00	12000	140.00	28000	
Concrete Pipe (D300mm)	20	m	13.80	276	32.20	644	
Slide Gate (D300mm)	1	No.	2070	2070	2530	2530	
Intake Box (Concrete)	1	LS	1225	1225	2275	2275	
4. Boosting Pump Station	1	LS		62920		51260	Pump 2+1
5. Media Filter (240 m3/hour)	1	LS	1410	1410	3290	3290	
6. Distribution Pipes							
PVC 280mm	183	m	47.85	8757	39.15	7164	6 bar
PVC 200mm	355	m	33.55	12246	27.45	10019	6 bar
PVC 160mm	306	m	24.75	7574	20.25	6197	6 bar
PVC 125mm	580	m	18.70	10846	15.30	8874	6 bar
PVC 90mm	1488	m	14.30	21278	11.70	17410	6 bar
Hydrant (3")	16	No.	20.40	326	47.60	762	
Fittings	10	%		6103		5043	
7. Sprinkler Irrigation Equipment							
Aluminium Pipe 3" 1-6m	2880	No.	28.20	81216	18.80	54144	
Aluminium Pipe 3" 1-9m	168	No.	40.80	6854	27.20	4570	
Quick Coupler 3"	3048	No.	12.00	36576	8.00	24384	
Sprinkler 30KB	1536	No.	22.40	34406	9.60	14746	
Riser Pipe	1536	No.	7.70	11927	3.30	5069	
Fittings (Elbow, Endplug)	5	%		8544		5146	
8. Drip Irrigation Equipment							
PVC pipe (D75mm)	1722	m	2.57	4417	3.14	5398	
PE hose (D16mm)	208600	m	0.12	25058	0.29	59868	
Emitter 4l/hour	417200	No.	0.02	6258	0.04	14602	
Control Head (60m3/hour)	4	No.	2000	8000	3000	12000	Water filter & others
9. Minor Works (% of Total)	5	%		15636		17559	
Total Cost				391354		368729	
Cost per Net Feddan				3914		3687	

Table I-11 Cost Estimation of Small Scale Investors: Vegetable + Fruit (Gross 103, Net 100 feddans)

Description	Qty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
1. Land Smoothing	25	fed	33.75	844	101.25	2531	Quarter Area to be Smooth
2. Inner Road (B=4m, Gravel paved)	12244	sqm	0.01	153	0.24	2908	Compacted
3. Night Storage							
Excavation	841	cum	0.54	452	1.61	1356	
Embankment	421	cum	0.65	274	1.95	821	
Concrete Lining (t=12cm)	162	cum	60.00	9720	140.00	22680	
Concrete Pipe (D300mm)	20	m	13.80	276	32.20	644	
Slide Gate (D300mm)	1	No.	2070	2070	2530	2530	
Intake Box (Concrete)	1	LS	1225	1225	2275	2275	
4. Boosting Pump Station	1	LS		54973		39144	Pump 2+1
5. Media Filter (170 m3/hour)	1	LS	1170	1170	2730	2730	
6. Distribution Pipes							
PVC 280mm	145	m	47.85	6938	39.15	5677	6 bar
PVC 200mm	298	m	33.55	9998	27.45	8180	6 bar
PVC 125mm	451	m	18.70	8434	15.30	6900	6 bar
PVC 110mm	729	m	15.50	12029	13.50	9842	6 bar
PVC 90mm	1760	m	14.30	25168	11.70	20592	6 bar
Hydrant (3")	20	No.	20.40	408	47.60	952	
Fittings	10	%		6297		5214	
7. Sprinkler Irrigation Equipment							
Aluminium Pipe 3" 1-6m	1056	No.	28.20	29779	18.80	19853	
Aluminium Pipe 3" 1-9m	84	No.	40.80	3427	27.20	2285	
Quick Coupler 3"	1140	No.	12.00	13680	8.00	9120	
Sprinkler 30KB	576	No.	22.40	12902	9.60	5530	
Riser Pipe	576	No.	7.70	4435	3.30	1901	
Fittings (Elbow, Endplug)	5	%		3211		1934	
8. Drip Irrigation Equipment							
PVC pipe (D75mm)	2870	m	2.57	7362	3.14	8997	
PE hose (D16mm)	159100	m	0.12	19093	0.29	45662	
Emitter 4l/hour	230500	No.	0.02	3458	0.04	8068	
Control Head (34m3/hour)	5	No.	2000	10000	3000	15000	Water filter & others
9. Minor Works (% of Total)	5	%		12413		12666	
Total Cost				260664		265991	
Cost per Net Feddan				2607		2660	

Table I-12 Cost Estimation of Large Scale Investors: Land Use Crops (Gross 748, Net 720 feddans)

Description	Qty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
1. Land Smoothing	180	fed	33.75	6075	101.25	18225	Quarter Area to be Smooth
2. Inner Road (B=4m, Gravel paved)	112240	sqm	0.01	1403	0.24	26657	Compacted
3. Night Storage							
Excavation	7170	cum	0.54	3854	1.61	11562	
Embankment	3580	cum	0.65	2327	1.95	6981	
Concrete Lining (t=12cm)	810	cum	60.00	48600	140.00	113400	
Concrete Pipe (Ø500mm)	25	m	27.60	690	64.40	1610	
Slide Gate (Ø500mm)	1	No.	8280	8280	10120	10120	
Intake Box (Concrete)	1	LS	4900	4900	9100	9100	
4. Boosting Pump Station	1	LS		609090		414870	Pump 4+1
5. Media Filter (1710 m ³ /hour)	1	LS	4500	4500	10500	10500	
6. Distribution Pipes							
AC 550mm	290	m	24.00	6960	56.00	16240	
AC 450mm	588	m	15.60	9173	36.40	21403	
PVC 355mm	588	m	60.50	35574	49.50	29106	
PVC 315mm	882	m	55.00	48510	45.00	39690	
PVC 250mm	1788	m	38.50	68838	31.50	56322	6 bar
PVC 200mm	1788	m	33.55	59987	27.45	49081	6 bar
PVC 125mm	10656	m	18.70	199267	15.30	163037	6 bar
Hydrant (5")	72	No.	23.70	1706	55.30	3982	
Fittings	10	%		43002		37886	
7. Sprinkler Irrigation Equipment							
Aluminium Pipe 3" 1=6m	25344	No.	28.20	714701	18.80	476467	
Aluminium Pipe 4" 1=9m	2160	No.	46.20	99792	30.80	66528	
Quick Coupler 3"	25344	No.	12.00	304128	8.00	202752	
Quick Coupler 4"	2160	No.	13.20	28512	8.80	19008	
Sprinkler 30RB	13824	No.	22.40	309658	9.60	132710	
Riser Pipe	13824	No.	7.70	106445	3.30	45619	
Fittings (Elbow, Endplug)	5	%		78162		47154	
8. Drip Irrigation Equipment							
PVC pipe (Ø90mm)	10386	m	4.51	46841	3.69	38324	
PE hose (Ø16mm)	998760	m	0.12	122847	0.29	286644	
Emitter 4l/hour	1997520	No.	0.02	29963	0.04	69913	
Control Head (285m ³ /hour)	3	No.	4400	13200	6600	19800	Water filter & others
9. Minor Works (% of Total)	5	%		150849		122235	
Total Cost				3167834		2566926	
Cost per Net Feddan				4400		3565	

Table I-13 Cost Estimation of Large Scale Investors: Dairy and Beef Cattle (Gross 748, Net 720 feddans) by Fixed Type Sprinkler

Description	Qty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
1. Land Smoothing	180	fed	33.75	6075	101.25	18225	Quarter Area to be Smooth
2. Inner Road (B=4m, Gravel paved)	112240	sqm	0.01	1403	0.24	26657	Compacted
3. Night Storage							
Excavation	7170	cum	0.54	3854	1.61	11562	
Embankment	3580	cum	0.65	2327	1.95	6981	
Concrete Lining (t=12cm)	810	cum	60.00	48600	140.00	113400	
Concrete Pipe (Ø500mm)	25	m	27.60	690	64.40	1610	
Slide Gate (Ø500mm)	1	No.	8280	8280	10120	10120	
Intake Box (Concrete)	1	LS	4900	4900	9100	9100	
4. Boosting Pump Station	1	LS		609090		414870	Pump 4+1
5. Media Filter (1620 m ³ /hour)	1	LS	4500	4500	10500	10500	
6. Distribution Pipes							
AC 550mm	290	m	24.00	6960	56.00	16240	
AC 450mm	588	m	15.60	9173	36.40	21403	
PVC 355mm	588	m	60.50	35574	49.50	29106	
PVC 315mm	882	m	55.00	48510	45.00	39690	
PVC 250mm	1788	m	38.50	68838	31.50	56322	6 bar
PVC 200mm	1788	m	33.55	59987	27.45	49081	6 bar
PVC 125mm	10656	m	18.70	199267	15.30	163037	6 bar
Hydrant (5")	72	No.	23.70	1706	55.30	3982	
Fittings	10	%		43002		37886	
7. Sprinkler Irrigation Equipment							
Aluminium Pipe 3" 1=6m	25344	No.	28.20	714701	18.80	476467	
Aluminium Pipe 4" 1=9m	2160	No.	46.20	99792	27.20	58752	
Quick Coupler 3"	25344	No.	12.00	304128	8.00	202752	
Quick Coupler 4"	2160	No.	13.20	28512	8.80	19008	
Sprinkler 30RB	13824	No.	22.40	309658	9.60	132710	
Riser Pipe	13824	No.	7.70	106445	3.30	45619	
Fittings (Elbow, Endplug)	5	%		77579		46765	
8. Minor Works (% of Total)	5	%		139594		101092	
Total Cost				2931480		2122937	
Cost per Net Feddan				4072		2949	

Table I-14 Cost Estimation of Large Scale Investors: Dairy and Beef Cattle (Gross 748, Net 578 feddans) by Center Pivot Sprinkler

Description	Qty	Unit	Foreign		Local		Remarks
			Rate (LE)	Cost (LE)	Rate (LE)	Cost (LE)	
1. Land Smoothing	180	fed	33.75	6075	101.25	18225	Quarter Area to be Smooth
2. Inner Road (B=4m, Gravel paved)	14160	sqm	0.01	177	0.24	3363	Compacted
3. Night Storage							
Excavation	7170	cum	0.54	3854	1.61	11562	
Embankment	3580	cum	0.65	2327	1.95	6981	
Concrete Lining (t=12cm)	810	cum	60.00	48600	140.00	113400	
Concrete Pipe (D500mm)	25	m	27.60	690	64.40	1510	
Slide Gate (D500mm)	1	No.	8280	8280	10120	10120	
Intake Box (Concrete)	1	LS	4900	4900	9100	9100	
4. Boosting Pump Station	1	LS		533740		368780	Pump 4+1
5. Media Filter (1620 m ³ /hour)	1	LS	4500	4500	10500	10500	
6. Distribution Pipes							
PVC 400mm	880	m	68.75	60500	56.25	49500	
PVC 315mm	2568	m	55.00	137940	45.00	112860	
Fittings	10	z		19844		16236	
7. Sprinkler Irrigation Equipment							
Center Pivot Sprinkler (R=440m)	1	LS		257716		26635	
Installation	20	%		51543		6727	
8. Minor Works (% of Total)	5	z		57034		38330	
Total Cost				1197720		804929	
Cost per Net Feddan				2072		1393	

Table I-15 Cost Estimation of Large Scale Investors: Fruit (Gross 748, Net 720 feddans)

Description	Qty	Unit	Foreign		Local		Remarks
			Rate (LE)	Cost (LE)	Rate (LE)	Cost (LE)	
1. Land Smoothing	180	fed	33.75	6075	101.25	18225	Quarter Area to be Smooth
2. Inner Road (B=4m, Gravel paved)	112240	sqm	0.01	1403	0.24	26657	Compacted
3. Night Storage							
Excavation	4020	cum	0.54	2161	1.61	6482	
Embankment	2010	cum	0.65	1307	1.95	3920	
Concrete Lining (t=12cm)	490	cum	60.00	29400	140.00	68600	
Concrete Pipe (D500mm)	25	m	27.60	690	64.40	1610	
Slide Gate (D500mm)	1	No.	8280	8280	10120	10120	
Intake Box (Concrete)	1	LS	4900	4900	9100	9100	
4. Boosting Pump Station	1	LS		492765		339795	Pump 4+1
5. Media Filter (920 m ³ /hour)	1	LS	3600	3600	8400	8400	
6. Distribution Pipes							
AC 550mm	290	m	24.00	6960	56.00	16240	
AC 450mm	588	m	15.60	9173	36.40	21403	
PVC 355mm	588	m	60.50	35574	49.50	29106	
PVC 315mm	682	m	55.00	48510	45.00	35690	
PVC 250mm	1788	m	38.50	68838	31.50	56322	6 bar
PVC 200mm	1788	m	33.55	59887	27.45	49081	6 bar
PVC 125mm	10656	m	18.70	199267	15.30	163037	6 bar
Hydrant (5")	72	z	23.70	1706	55.30	3982	
Fittings	10	z		43002		37886	
7. Drip Irrigation Equipment							
PVC pipe (D90mm)	20520	m	4.51	92545	3.69	75719	
PE hose (D16mm)	584640	m	0.12	71911	0.29	167792	
Emitter 4l/hour	1159280	No.	0.02	17539	0.04	46925	
Control Head (153m ³ /hour)	6	No.	4000	24000	6000	36000	Water filter & others
8. Minor Works (% of Total)	5	z		61480		61505	
Total Cost				1291072		1291595	
Cost per Net Feddan				1793		1794	

Table I-16 Cost Estimation of On-farm Boosting Pump Station (1/3)

Description	Q'ty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
1. Small Scale Farms							
Pump (29 1/s, 45m head) + Mortor	3	No.	5600	16800	2400	7200	Net 100 feddans
Transformer	1	No.	14000	14000	6000	6000	2working & 1stand-by
Switchgear	1	No.	3500	3500	1500	1500	
Crane	1	LS	3150	3150	3850	3850	
Pipes, Fittings, Valves	1	LS	3375	3375	4125	4125	
Cables	1	LS	5600	5600	2400	2400	
Controll & Metering	1	LS	4200	4200	1800	1800	
Miscellaneous for Pumps	10	%		5063		2688	Percent of above
Pump House	33	m2	75	2475	225	7425	3700x8800
Civil Works	20	%		4758		14273	Percent of above
Total Cost				62920		51260	
2. Graduate (Vegetables/Fruit)							
Pump (29 1/s, 45m head) + Mortor	3	No.	5600	16800	2400	7200	Net 100 feddans
Transformer	1	No.	14000	14000	6000	6000	2working & 1stand-by
Switchgear	1	No.	3500	3500	1500	1500	
Crane	1	LS	3150	3150	3850	3850	
Pipes, Fittings, Valves	1	LS	3375	3375	4125	4125	
Cables	1	LS	5600	5600	2400	2400	
Controll & Metering	1	LS	4200	4200	1800	1800	
Miscellaneous for Pumps	10	%		5063		2688	Percent of above
Pump House	33	m2	75	2475	225	7425	3700x8800
Civil Works	20	%		4758		14273	Percent of above
Total Cost				62920		51260	
3. Graduate (Vegetables+Livestock)							
Pump (27 1/s, 45m head) + Mortor	3	No.	5600	16800	2400	7200	Net 100 feddans
Transformer	1	No.	14000	14000	6000	6000	2working & 1stand-by
Switchgear	1	No.	3500	3500	1500	1500	
Crane	1	LS	3150	3150	3850	3850	
Pipes, Fittings, Valves	1	LS	3375	3375	4125	4125	
Cables	1	LS	5600	5600	2400	2400	
Controll & Metering	1	LS	4200	4200	1800	1800	
Miscellaneous for Pumps	10	%		5063		2688	Percent of above
Pump House	33	m2	75	2475	225	7425	3700x8800
Civil Works	20	%		4758		14273	Percent of above
Total Cost				62920		51260	

Table I-17 Cost Estimation of On-farm Boosting Pump Station (2/3)

Description	Q'ty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
4. Small Scale Investor (Vegetables+Beef)							
Pump (32 1/s, 45m head) + Mortor	3	No.	5600	16800	2400	7200	Net 100 feddans
Transformer	1	No.	14000	14000	6000	6000	2working & 1stand-by
Switchgear	1	No.	3500	3500	1500	1500	
Crane	1	LS	3150	3150	3850	3850	
Pipes, Fittings, Valves	1	LS	3375	3375	4125	4125	
Cables	1	LS	5600	5600	2400	2400	
Controll & Metering	1	LS	4200	4200	1800	1800	
Miscellaneous for Pumps	10	%		5063		2688	Percent of above
Pump House	33	m2	75	2475	225	7425	3700x8800
Civil Works	20	%		4758		14273	Percent of above
Total Cost				62920		51260	
5. Small Scale Investor (Vegetables+Fruits)							
Pump (24 1/s, 45m head) + Mortor	3	No.	4900	14700	2100	6300	Net 100 feddans
Transformer	1	No.	12600	12600	5400	5400	2working & 1stand-by
Switchgear	1	No.	3290	3290	1410	1410	
Crane	1	LS	3150	3150	3850	3850	
Pipes, Fittings, Valves	1	LS	3150	3150	3850	3850	
Cables	1	LS	5320	5320	2280	2280	
Controll & Metering	1	LS	4200	4200	1800	1800	
Miscellaneous for Pumps	10	%		4641		2489	Percent of above
Pump House	33	m2	0	0	0	0	
Civil Works	20	%		3922		11765	Percent of above
Total Cost				54973		39144	
6. Large Scale Investor (Land Use Crops)							
Pump (111 1/s, 55m head) + Mortor	5	No.	70000	350000	30000	150000	Net 720 feddans
Transformer	1	No.	70000	70000	30000	30000	2working & 1stand-by
Switchgear	1	No.	21000	21000	9000	9000	
Crane	1	LS	18000	18000	22000	22000	
Pipes, Fittings, Valves	1	LS	15750	15750	19250	19250	
Cables	1	LS	21000	21000	9000	9000	
Controll & Metering	1	LS	14000	14000	6000	6000	
Miscellaneous for Pumps	10	%		50975		24525	Percent of above
Pump House	76	m2	75	5700	225	17100	4200x18000
Civil Works	26	%		42665		127995	Percent of above
Total Cost				605090		414970	

Table I-18 Cost Estimation of On-farm Boosting Pump Station (3/3)

Description	Qty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
7. Large Scale Investor (Dairy & Beef Cattle)							By Conventional Sprinkle
Pump (112 l/s, 55m head) + Motor	5	No.	70000	350000	30000	150000	Net 720 feddans
Transformer	1	No.	70000	70000	30000	30000	Working & Stand-by
Switchgear	1	No.	21000	21000	9000	9000	
Crane	1	LS	18000	18000	22000	22000	
Pipes, Fittings, Valves	1	LS	15750	15750	19250	19250	
Cables	1	LS	21000	21000	9000	9000	
Control & Metering	1	LS	14000	14000	6000	6000	
Miscellaneous for Pumps	10	%		50975		24525	Percent of above
Pump House	76	m2	75	5700	225	17100	4200x18000
Civil Works	20	%		42665		12395	Percent of above
Total Cost				609090		414870	
8. Large Scale Investor (Dairy & Beef Cattle)							By Center Pivot Sprinkle
Pump (112 l/s, 45m head) + Motor	5	No.	59500	297500	25500	127500	Net 578 feddans
Transformer	1	No.	63000	63000	27000	27000	Working & Stand-by
Switchgear	1	No.	18900	18900	8100	8100	
Crane	1	LS	18000	18000	22000	22000	
Pipes, Fittings, Valves	1	LS	14850	14850	18150	18150	
Cables	1	LS	21000	21000	9000	9000	
Control & Metering	1	LS	12600	12600	5400	5400	
Miscellaneous for Pumps	10	%		44585		21715	Percent of above
Pump House	76	m2	75	5700	225	17100	4200x18000
Civil Works	20	%		37605		112815	Percent of above
Total Cost				533740		368780	
9. Large Scale Investor (Fruits)							Net 720 feddans
Pump (64 l/s, 55m head) + Motor	5	No.	56000	280000	24000	120000	Working & Stand-by
Transformer	1	No.	56000	56000	24000	24000	
Switchgear	1	No.	17500	17500	7500	7500	
Crane	1	LS	15750	15750	19250	19250	
Pipes, Fittings, Valves	1	LS	12600	12600	15400	15400	
Cables	1	LS	18200	18200	7800	7800	
Control & Metering	1	LS	11200	11200	4800	4800	
Miscellaneous for Pumps	10	%		41125		19875	Percent of above
Pump House	76	m2	75	5700	225	17100	4200x18000
Civil Works	20	%		34690		104070	Percent of above
Total Cost				492765		335795	

Table I-19 Cost Estimation of On-farm Drainage

Description	Qty	Unit	Foreign		Local		Remarks
			Rate(LE)	Cost(LE)	Rate(LE)	Cost(LE)	
1. 100feddans Service Unit (Class II)							
Lateral (075mm)	3752	m	5.50	20636	4.50	16884	Moderately Well Drained
Collector (D150mm)	350	m	4.50	1575	10.50	3675	
Collector (D200mm)	350	m	6.00	2100	14.00	4900	
Miscellaneous	3	%		729		764	
Total Cost per Service Unit				25040		26223	
Cost per Net feddan				250		262	
2. 100feddans Service Unit (Class III)							
Lateral (075mm)	7504	m	5.50	41272	4.50	33768	Imperfectly Drained
Collector (D150mm)	350	m	4.50	1575	10.50	3675	
Collector (D200mm)	350	m	6.00	2100	14.00	4900	
Miscellaneous	3	%		1348		1270	
Total Cost per Service Unit				46295		43513	
Cost per Net feddan				453		436	
3. 720feddans Service Unit (Class II)							
Lateral (075mm)	29376	m	5.50	161568	4.50	132192	Moderately Well Drained
Collector (D150mm)	1500	m	4.50	6750	10.50	15750	
Collector (D200mm)	1800	m	6.00	10800	14.00	25200	
Collector (D250mm)	1950	m	6.90	13455	16.10	31395	
Miscellaneous	3	%		5771		6136	
Total Cost per Service Unit				198350		210673	
Cost per Net feddan				275		293	
4. 720feddans Service Unit (Class III)							
Lateral (075mm)	59640	m	5.50	328020	4.50	268380	Imperfectly Drained
Collector (D150mm)	1500	m	4.50	6750	10.50	15750	
Collector (D200mm)	1800	m	6.00	10800	14.00	25200	
Collector (D250mm)	1950	m	6.90	13455	16.10	31395	
Miscellaneous	3	%		10774		10222	
Total Cost per Service Unit				369796		350947	
Cost per Net feddan				514		487	
On-Farm Drainage Cost for Class II							
100 feddans Service Unit	2700	fed	250	676089	262	708015	
720 feddans Service Unit	4200	fed	275	1157043	293	1228926	
Sub Total	6900			1833132		1936941	
On-Farm Drainage Cost for Class III							
100 feddans Service Unit	12100	fed	453	5601745	436	5277208	
720 feddans Service Unit	8200	fed	514	4211563	487	3396894	
Sub Total	20300			9813307		9274102	
Total On-Farm Drainage Cost							
				11646439		11211043	
Investment in 2nd Year (2003)	5	%		582000		561000	
Investment in 4th Year (2005)	15	%		1747000		1682000	
Investment in 6th Year (2007)	30	%		3494000		3363000	
Investment in 11th Year (2012)	50	%		5823000		5606000	

Table I-20 Construction Schedule and Total Cost related to the Agricultural Development Supporting Project

Unit : 10³ LE

Description	1999		2000		2001		2002		2003		2004		Total	
	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.
North Sinai Agricultural Development Center (NSADC)	1,428	2,717	1,428	2,717									2,856	5,434
NSADC Branch Office					2,374	3,402							2,374	3,402
Agricultural Extension Branch Office						4,946							0	4,946
Multi-Purpose Agricultural Cooperatives							9,943	6,632	7,457	4,972	7,457	4,972	24,857	16,576
Livestock Hygiene Branch Office							3,839	3,657					3,839	3,657
Farmers' Association							302	2,370	150	1,184	450	3,552	902	7,106
Total	1,428	2,717	1,428	2,717	2,374	8,348	14,084	12,659	7,607	6,156	7,907	8,524	34,828	41,121
														75,949

Table I-21 (1) Breakdown of North Sinal Agricultural Development Center (1/3)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
1)	Main Building						
1-1	Main Building	1,400	sq.m	1,700	2,380	-	2,380
1-2	Office Facilities						
	Overhead Projector	1	set	3,000	3	3	-
	Audio and Visual Aids	1	set	95,700	96	96	-
	Furniture and Others		L.S.	-	140	140	-
	Miscellaneous				40	-	40
1-3	Vehicles						
	Jeep	1	set	145,000	145	145	-
	Pick-up	1	set	65,200	66	66	-
	Truck	1	set	120,000	120	120	-
	Minibus	1	set	101,500	102	102	-
	Spareparts(10%)				43	43	-
	Transportation				58	-	58
	Miscellaneous				53	50	3
	Garage	120	sq.m	300	36	-	36
1-4	Research Equipments				650	600	50
	Sub-Total of 1)				3,932	1,365	2,567
2)	Dormitory						
	Building	1,000	sq.m	2,600	2,600	-	2,600
	Furniture and Others		L.S.	-	870	-	870
	Sub-Total of 2)				3,470	-	3,470
3)	Work Shop						
	Building	400	sq.m	720	288	-	288
	Equipment		L.S.	-	720	720	-
	Garage	120	sq.m	290	35	-	35
	Sub-Total of 3)				1,043	720	323
4)	Officers' House	2,000	sq.m	1,400	2,800	-	2,800

Table I-21 (2) Breakdown of North Sinal Agricultural Development Center (2/3)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
5)	Applied Examination Farm						
	Water Intake	2	place	10,000	20	8	12
	Cropping Test Field	5	fed.	5,000	25	-	25
	Irrigation Test Field	5	fed.	6,000	30	-	30
	Agri. Machinery Test Field	5	fed.	5,000	25	-	25
	Warehouse	400	sq.m	430	172	-	172
	Livestock Shed	2,100	sq.m	720	1,512	-	1,512
	Hay Storage	200	sq.m	580	116	-	116
	Irrigat. Equip. for Test		L.S.		500	500	-
	Sub-Total of 5)				2,400	508	1,892
6)	Agri-Machineries						
	Tractor(70ps)	3	set	105,800	318	318	-
	Hand Tractor	6	set	13,000	78	78	-
	Disk Harrow	1	set	38,500	39	39	-
	Disk Plow	1	set	13,400	14	14	-
	Rotaly Harrow	1	set	16,100	17	17	-
	Trailer	1	set	32,200	33	33	-
	Limesower	3	set	8,600	26	26	-
	Fertilizer/Drill	3	set	31,300	94	94	-
	Planter	1	set	45,400	46	46	-
	Sprayer	1	set	52,000	52	52	-
	Combine	1	set	216,000	216	216	-
	Hand Mower	3	set	10,400	32	32	-
	Spareparts(10%)				97	97	-
	Transportation, etc				80	-	80
	Miscellaneous(10%)				115	55	60
	Sub-Total of 6)				1,257	1,117	140
7)	Water Resource						
	Well	400	m	1,400	560	-	560
	Pump	2	set	35,000	70	50	20
	Pipeline	4,000	m	300	1,200	1,000	200
	Miscellaneous(10%)				183	133	50
	Sub-Total of 7)				2,013	1,183	830

Table I-21 (3) Breakdown of North Sinal Agricultural Development Center (3/3)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
8)	Electric Facilities						
	Generator	1	set		600	600	-
	Spareparts(10%)				60	60	-
	Power Line	2,000	m	300	600	540	60
	Sub-Total of 8)				1,260	1,200	60
9)	Social Facilities						
	Drinking Water Facilities		L.S.		700	560	140
	Sewage Treatment Facilities		L.S.		1,100	880	220
	Medical and Other Equipment		L.S.		290	140	150
	Mosque				150	-	150
	Sub-Total of 9)				2,240	1,580	660
10)	Others						
	Gate and Gate House	1	set		45	20	25
	Fence	1,400	m	300	420	-	420
	Other Facilities		L.S.		270	-	270
	Landscape				750	-	750
	Sub-Total of 10)				1,485	20	1,465
11)	Material						
	Fertilizers	20	fed.	12,000	240	-	240
	Chemicals	20	fed.	6,000	120	-	120
	Others				70	-	70
	Sub-Total of 11)				430	-	430
12)	Engineering Fee(10%)						
					2,233	770	1,463
	Total of 1)~12)				24,563	8,463	16,100

Note: F.C.; Foreign Currency
L.C.; Local Currency

Table I-22 (1) Breakdown of North Sinal Agricultural Development Branch Office (1/2)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
1)	Main Office						
1-1	Main Office	700	sq.m	1,700	1,190	-	1,190
1-2	Office Facilities						
	Furniture and Others		L.S.	-	70	70	-
	Miscellaneous				20	-	20
1-3	Vehicles						
	Pick-up	1	set	65,200	66	66	-
	Motorcycle	3	set	4,500	14	14	-
	Spareparts(10%)				8	8	-
	Transportation				6	-	6
	Miscellaneous				6	5	1
	Garage	20	sq.m	300	6	-	6
	Sub-Total of 1)				1,386	163	1,223
2)	Officers' House	500	sq.m	1,400	700	-	700
3)	Electric Facilities						
	Generator	1	set		600	600	-
	Spareparts(10%)				60	60	-
	Power Line	2,000	m	300	600	540	60
	Sub-Total of 3)				1,260	1,200	60
4)	Social Facilities						
	Drinking Water Facilities		L.S.		400	300	100
	Sewage Treatment Facilities		L.S.		600	400	200
	Medical and Other Equipment		L.S.		150	75	75
	Mosque				100	-	100
	Sub-Total of 4)				1,250	775	475

Table I-22 (2) Breakdown of North Sinai Agricultural Development Branch Office (2/2)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
5)	Others						
	Gate and Gate House	1	set		45	20	25
	Fence	700	m	300	210	-	210
	Other Facilities		L.S.		100	-	100
	Landscape				300	-	300
	Sub-Total of 5)				655	20	635
6)	Engineering Fee(10%)				525	215	309
	Total of 1)~6)				5,776	2,374	3,402

Note: F.C.; Foreign Currency
L.C.; Local Currency

Table I-23 (1) Breakdown of Multi-purpose Agricultural Cooperatives (1/2)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
1)	Building						
1-1	Building						
	Main Office	1,000	sq.m	1,700	1,700	-	1,700
	Storage Box Flat	18,000	sq.m	75	1,350	-	1,350
1-2	Office Facilities						
	Furniture and Others		L.S.	-	140	140	-
	Miscellaneous				40	-	40
1-3	Vehicles						
	Sedan	2	set	72,500	145	145	-
	Pick-up	6	set	65,200	392	392	-
	Spareparts(10%)				54	54	-
	Transportation				20	-	20
	Miscellaneous				20	15	5
	Garage	100	sq.m	300	30	-	30
	Sub-Total of 1)				3,891	746	3,145
2)	Officers' House	1,200	sq.m	1,400	1,680	-	1,680
3)	Machineries						
	Forklift	18	set	167,000	3,006	3,006	-
	Beltconveyor	18	set	50,000	900	900	-
	Carrier Board	1,800	set	50	90	90	-
	Storage Box	12,000	set	100	1,200	1,200	-
	Spareparts(10%)				520	520	-
	Transportation, etc				250	-	250
	Miscellaneous(10%)				600	300	300
	Sub-Total of 3)				6,566	6,016	550

Table I-23 (2) Breakdown of Multi-purpose Agricultural Cooperatives (2/2)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
5)	Electric facilities						
	Generator	6	set		3,600	3,600	-
	Spareparts(10%)				360	360	-
	Power Line	12,000	m	300	3,600	3,240	360
	Sub-Total of 5)				7,560	7,200	360
6)	Social Facilities						
	Drinking Water Facilities		L.S.		4,200	3,200	1,000
	Sewage Treatment Facilities		L.S.		6,600	4,400	2,200
	Medical and Other Equipment		L.S.		1,800	900	900
	Mosque				900	-	900
	Sub-Total of 6)				13,500	8,500	5,000
7)	Others						
	Gate and Gate House	6	set		270	135	135
	Fence	6,000	m	300	1,800	-	1,800
	Other Facilities		L.S.		600	-	600
	Landscape	6	set		1,800	-	1,800
	Sub-Total of 7)				4,470	135	4,335
12)	Engineering Fee(10%)				3,766	2,260	1,506
	Total of 1)~12)				41,433	24,857	16,576

Note: F.C.; Foreign Currency

L.C.; Local Currency

Table I-24 (1) Breakdown of Livestock Hygiene Branch Office (1/2)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C. (Unit: '000LE)	L.C.
1)	Main Office						
1-1	Building						
	Main Office	500	sq.m	1,700	850	-	850
1-2	Office Facilities						
	Refrigerator	1	set	10,000	10	10	-
	Medicine rack	2	set	7,000	14	14	-
	Furniture and Others		L.S.	-	50	50	-
	Miscellaneous				10	-	10
1-3	Vehicles						
	Pick-up	6	set	65,200	392	392	-
	Spareparts(10%)				39	39	-
	Transportation				20	-	20
	Miscellaneous				20	15	5
	Garage	50	sq.m	300	15	-	15
	Sub-Total of 1)				1,420	520	900
2)	Officers' House	600	sq.m	1,400	840	-	840
3)	Electric Facilities						
	Generator	1	set		600	600	-
	Spareparts(10%)				60	60	-
	Power Line	2,000	m	300	600	540	60
	Sub-Total of 3)				1,260	1,200	60
4)	Social Facilities						
	Drinking Water Facilities		L.S.		700	500	200
	Sewage Treatment Facilities		L.S.		1,600	1,100	500
	Medical and Other Equipment		L.S.		300	150	150
	Mosque				100	-	100
	Sub-Total of 4)				2,700	1,750	950

Table I-24 (2) Breakdown of Livestock Hygiene Branch Office (2/2)

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
5)	Others						
	Gate and Gate House	1	set		45	20	25
	Fence	500	m	300	150	-	150
	Other Facilities		L.S.		100	-	100
	Landscape	1	set		300	-	300
	Sub-Total of 5)				595	20	575
6)	Engineering Fee(10%)				681	349	332
	Total of 1)~6)				7,496	3,839	3,657

Note: F.C.; Foreign Currency
L.C.; Local Currency

Table I-25 Breakdown of Farmers' Association

No.	Description	Qty's	Unit	Rate (LE)	Total	F.C.	L.C.
					(Unit: '000LE)		
1)	Office						
1-1	Office						
	Meeting Office	4,500	sq.m	1,000	4,500	-	4,500
		500*9places					
1-2	Office Facilities						
	Furniture and Others		L.S.	-	450	200	250
	Miscellaneous				90	-	90
	Sub-Total of 1)				5,040	200	4,840
2)	Social Facilities						
	Drinking Water Facilities		L.S.		700	500	200
	Mosque				100	-	100
	Sub-Total of 2)				800	500	300
3)	Others						
	Gate	9	set		270	120	150
	Fence	3,600	m	300	1,080	-	1,800
	Other Facilities		L.S.		90	-	90
	Sub-Total of 3)				1,440	120	1,320
4)	Engineering Fee(10%)				728	82	646
	Total of 1)~4)				8,008	902	7,106

Note: F.C.; Foreign Currency
L.C.; Local Currency

Table I-26 SUMMARY of CONSTRUCTION COST for SOCIAL INFRASTRUCTURES

(Unit : 1000 LE)

Description	1999		2000		2001		2002		Total		Grand Total
	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	
1) Road Network (inner Village)	11,256	27,354	15,008	36,472	11,256	27,354	0	0	37,520	91,180	128,700
2) Domestic Water Supply System	8,328	10,143	11,659	14,200	11,659	14,200	1,666	2,029	33,310	40,570	73,880
3) Electric Supply System	14,400	13,050	14,400	13,050	16,800	15,225	2,400	2,175	48,000	43,500	91,500
4) Sewerage and Refuse	12,542	19,320	18,813	28,980	18,813	28,980	12,542	19,320	62,710	96,600	159,310
5) Education Facilities	5,320	11,937	5,320	11,937	6,384	14,325	4,256	9,550	21,281	47,749	69,030
6) Other Public Services	670	1,520	2,346	5,319	2,346	5,319	1,341	3,039	6,703	15,197	21,900
7)-1 Housing(1st Stage)	24,552	73,656	34,373	103,118	34,373	103,118	4,910	14,731	98,208	294,623	392,830
7)-2 Housing(2nd Stage)	0	0	0	0	0	0	0	0	(93,323)	(279,968)	(373,290)
Sub Total	77,068	156,979	101,919	213,075	101,631	208,520	27,115	50,844	307,732	629,418	937,150
Contingency (15 %)	11,560	23,547	15,288	31,961	15,245	31,278	4,067	7,627	46,160	94,413	140,573
Total	88,628	180,526	117,206	245,037	116,875	239,798	31,182	58,470	353,892	723,831	1,077,723
Percentage	25.04%	24.94%	33.12%	33.85%	33.03%	33.13%	8.81%	8.08%	100.00%	100.00%	

Note : Item 7)-2 "Housing (2 nd Stage)" will be constructed in future and this cost is not counted in this table.

Table I-27 SUMMARY of CONSTRUCTION COST for SOCIAL INFRASTRUCTURES

(Unit : 1000 LE)

Description	1999		2000		2001		2002		2003		2004		Total		Grand Total
	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	
1) Road Network (Inner Villages)	3,752	9,118	11,256	27,354	11,256	27,354	11,236	27,354	0	0	0	0	37,520	91,180	128,700
2) Domestic Water Supply System	3,331	4,057	8,328	10,143	8,328	10,143	9,993	12,171	3,331	4,057	0	0	23,310	40,370	73,880
3) Electric Supply System	4,800	4,350	7,200	6,535	12,000	10,875	12,000	10,875	12,000	10,875	0	0	48,000	43,500	91,500
4) Sewerage and Refuse	0	0	3,136	4,830	15,678	24,150	18,813	28,080	25,084	38,640	0	0	62,710	96,600	159,310
5) Education Facilities	1,064	2,387	2,128	4,775	4,256	9,350	6,384	14,525	6,384	14,525	1,064	2,387	21,581	47,740	69,030
6) Other Public Services	335	760	335	760	1,341	3,039	1,676	3,799	2,346	5,319	670	1,520	6,703	15,197	21,900
7)-1 Housing (1st Stage)	9,821	29,462	9,821	29,462	19,642	58,925	19,642	58,925	19,642	58,925	19,642	58,925	98,208	294,622	392,830
7)-2 Housing(2nd Stage)	0	0	0	0	0	0	0	0	0	0	0	0	(93,223)	(270,968)	(373,290)
Sub Total	23,103	50,135	42,203	83,848	72,499	144,035	79,764	156,438	68,787	132,140	21,376	62,822	307,752	629,418	937,150
Contingency (15 %)	3,465	7,520	6,330	12,577	10,875	21,605	11,965	23,464	10,318	19,821	3,206	9,425	46,160	94,413	140,573
Total	26,568	57,655	48,534	96,426	83,374	165,640	91,728	179,893	79,105	151,961	24,582	72,246	353,892	723,831	1,077,723
Percentage	7.51%	7.97%	13.71%	13.82%	23.56%	22.86%	25.92%	24.85%	22.35%	20.99%	6.95%	9.36%	100.00%	100.00%	

Note : Item 7)-2 "Housing (2 nd Stage)" will be constructed in future and this cost is not counted in this table.

Table I-28

Cost Disbursement for Social Infrastructures (Case A)

Year	Construction Cost	O/M Cost	Total
1999	46,868	3,282	50,150
2000	48,534	8,875	57,409
2001	82,374	18,020	100,394
2002	91,729	23,090	114,819
2003	78,186	37,869	116,055
2004	24,562	41,740	66,302
2005	?	41,740	41,740
2006	?	41,740	41,740
2007	?	41,740	41,740
2008	?	41,740	41,740
2009	?	41,740	41,740
Total	355,892	311,975,948	667,867,840

Cost Disbursement for Social Infrastructures (Case B)

Year	Construction Cost	O/M Cost	Total
1999	78,204	10,424	88,628
2000	117,206	28,454	145,660
2001	18,875	38,208	57,083
2002	31,182	41,740	72,922
2003	?	41,740	41,740
2004	?	41,740	41,740
2005	?	41,740	41,740
2006	?	41,740	41,740
2007	?	41,740	41,740
2008	?	41,740	41,740
2009	?	41,740	41,740
Total	355,892	311,975,948	667,867,840

O/M Cost For School

Item	QTY (Unit)	Unit Cost (Unit)	Cost	Remarks
Staff Salary	1,820	10,000 \$/year	18,200,000	25,020 (input)
Electricity	0.4 Kw/Day	0.1 \$/kwh	250,000	250 300 day/year (Staff/Supply)
Maintenance cost	18,020 X 1000 LF	5.0%	901,000	5065 % of Const. cost
Water running cost		2.5%	450,500	302.5 % of above (except salary)
Total			19,801,500	17,400 \$/year

Total O/M cost for Public Service Facilities

Item	Unit	No. of Staff	Unit Cost (Unit/Year)	O/M Cost per Year (1000 \$/Year)	Remarks
Education		1,820	10,000	18,200	
Governmental Office		500	10,000	5,000	
Library/Shop/Book		400	10,000	4,000	
Social Community Center		145	10,000	1,450	
Fire Station		108	10,000	1,080	
Hospital/Health Center		276	10,000	2,760	
Police		125	10,000	1,250	
Others		456	10,000	4,560	
Total		5,080		41,300	

Staff

Note: The O/M cost for infrastructure facilities such as Road, Domestic Water, Electricity, Sewerage and Refuse, etc. is not included. Only cost for public service facilities such as Governmental office, Education, Hospital, etc. (provided with administrative employees) is estimated.

Table I-29 CONSTRUCTION COST of VILLAGE ROAD on Central Village [C-3 : (450 Feddans)]

Construction Item	Quantity	Unit	Unit Cost (LE)	Construction Cost (1000 LE)		Dimension of Road Section (m)				Local Street in Block (m/B)		Ratio of F/C
				Foreign	Local	Asphalt Roadway	Gravel Roadway	Side Walk	Central Pelt	Small Investor	Grad. S-Farmer	
Main Street	2,996	m	495	400	1,083	1,483	8.0	0.0	8.0	3.0		27%
Street Between Blocks	9,110	m	480	1,224	3,149	4,373	8.0	0.0	8.0	0.0		28%
Local Street	36,750	m	30	287	816	1,103	0.0	4.0	2.0	0.0	1,500	26%
Bridge	3	Unit	674,500	708	1,316	2,024	8.0	0.0	2.0	0.0	1,400	35%
Related Structure	1	Lump sum		261	538	898	10 % of total cost					29%
Total				2,880	7,002	9,881						29%

Standard Unit Cost of Village Roads per Feddan

Construction Cost (LE)		
Foreign	Local	Total
5,400	15,560	Rounded
		21,960

20 cap. /Fed

Total Construction Cost of Village Road

Village Name	Village Area (Fed)	Construction Cost		Village Name	Village Area (Fed)	Construction Cost		Unit: 1000 LE
		Foreign	Local			Foreign	Local	
A - 1	520	3,330	8,090	B - 4	500	3,200	7,780	10,980
A - 2	420	2,690	6,540	B - 5	470	3,010	7,310	10,320
A - 3	350	2,240	5,450	C - 1	350	2,240	5,450	7,690
A - 4	490	3,140	7,620	C - 2	290	1,860	4,510	6,370
A - 5	210	1,340	3,270	C - 3	450	2,880	7,000	9,880
B - 1	640	4,100	9,960	C - 4	300	1,920	4,670	6,590
B - 2	490	3,140	7,620	C - 5	230	1,470	3,580	5,050
B - 3	150	960	2,330	Total	5,860	37,520	91,180	128,700

Table I-30 CONSTRUCTION COST OF MAIN PIPELINE (from El Arish to Each Village)

Unit : 1000 LE

Form to	Water Demand and Dimensions						Construction Cost							
	Population	Demand (m ³ /day)	Discharge (l/sec)	Diameter (mm)	Velocity (m/sec)	Dist. (km)	Unit Cost (L.E/m)		Total Cost		Total			
					Foreign		Local	Foreign	Local					
0	1	23,200	335.7	0.336	500	1.709	171	92.0	263.0	16.8	2,873	1,546	4,418	
1	2	21,530	311.5	0.311	500	1.586	171	92.0	263.0	0.8	137	74	210	
2	3	4,190	60.6	0.061	250	1.235	46	38.0	84.0	5.1	235	194	428	
3	4	2,800	40.5	0.041	250	0.825	46	38.0	84.0	7.6	350	289	638	
4	A-5	840	12.2	0.012	125	0.990	23	18.0	41.0	8.7	200	157	357	
1	A-2	8,340	1.670	24.2	0.024	200	40	33.0	73.0	0.5	20	17	37	
3	A-3	6,970	1,390	20.1	0.020	150	30	24.0	54.0	2.1	63	50	113	
4	A-4	9,800	1,960	28.4	0.028	200	40	33.0	73.0	0.2	8	7	15	
2	5	17,340	250.9	0.251	450	1.577	146	79.0	225.0	7.1	1,037	561	1,598	
5	6	13,360	193.3	0.193	450	1.215	146	79.0	225.0	7.2	1,051	569	1,620	
6	7	10,800	156.3	0.156	400	1.243	83	67.0	150.0	4.1	340	275	615	
7	8	3,840	55.6	0.056	250	1.132	46	38.0	84.0	7.8	359	296	655	
8	B-5	1,870	27.1	0.027	200	0.861	40	33.0	73.0	8.6	344	284	628	
5	A-1	10,220	2,040	29.5	0.030	200	40	33.0	73.0	0.2	8	7	15	
5	B-2	9,690	1,940	28.1	0.028	200	40	33.0	73.0	6.0	240	198	438	
6	B-1	12,780	2,560	37.0	0.037	200	40	33.0	73.0	0.2	8	7	15	
7	B-3	2,990	600	8.7	0.009	125	23	18.0	41.0	3.6	83	65	148	
8	B-4	9,850	1,970	28.5	0.029	200	40	33.0	73.0	0.2	8	7	15	
7	9	6,360	92.0	0.092	300	1.302	63	51.0	114.0	5.6	353	286	638	
9	10	5,470	79.1	0.079	300	1.120	63	51.0	114.0	6.4	403	326	730	
10	11	4,290	62.1	0.062	250	1.264	46	38.0	84.0	4.1	189	156	344	
11	12	2,490	36.0	0.036	200	1.147	40	33.0	73.0	8.7	348	287	635	
12	C-1	6,810	1,360	19.7	0.020	150	30	24.0	54.0	5.4	162	130	292	
9	C-5	4,430	890	12.9	0.013	125	23	18.0	41.0	1.7	39	31	70	
10	C-4	5,900	1,180	17.1	0.017	150	30	24.0	54.0	4.0	120	96	216	
11	C-3	8,990	1,800	26.0	0.026	200	40	33.0	73.0	0.2	8	7	15	
12	C-2	5,630	1,130	16.4	0.016	150	30	24.0	54.0	0.2	6	5	11	
Total							115,930	23,200	335.7	0.336	123.1	8,990	5,920	14,910

Table I-31 CONSTRUCTION COST OF PIPELINE INNER VILLAGE (CENTRAL VILLAGE [C-3] : 450 Feddans)

Unit : 1000 LE

Construction Item	Quantity	Unit	Unit Cost (LE)	Construction Cost		Ratio of F/C	Remarks
				Foreign	Local		
Pipe Line	48.856	m	23.0	618	506	55%	Total length of inner road, D(mean)=50 mm Stop Valves and others (15 % of Pipeline)
Related Structures	1	Lump sum		93	76	55%	
Elevated Tank	2	Unit	1,411,800	988	1,836	35%	Capacity 350 m ³ include Pump/Valves 10 % of above
Others	1	Lump sum		169	243	41%	
Total				1,868	2,661	41%	

Standard Unit Cost of Pipeline Network inner Village per Feddan

Construction Cost (LE)		
Foreign	Local	Total
4,150	5,913	10,060

/feddan 20 cap. /Fed

Total Construction Cost of Inner Village Pipeline

Unit : 1000 LE

Village Name	Village Area	Construction Cost		Village Area	Construction Cost	
		Foreign	Local		Foreign	Local
A - 1	520	2,160	3,070	500	2,080	5,040
A - 2	420	1,750	2,490	470	1,950	4,730
A - 3	350	1,450	2,070	350	1,450	3,520
A - 4	490	2,030	2,900	290	1,200	2,910
A - 5	210	870	1,240	450	1,870	4,530
B - 1	640	2,660	3,760	300	1,250	3,020
B - 2	490	2,030	2,900	230	950	2,310
B - 3	150	620	890	Total	24,320	58,970

Table I-32

ELECTRIC POWER DEMAND

Village	Population	Demand (KW)
A-1	10,220	4,090
A-2	8,340	3,340
A-3	6,970	2,790
A-4	9,800	3,920
A-5	4,180	1,680
Sub Total	39,510	15,820
B-1	12,780	5,120
B-2	9,690	3,880
B-3	2,990	1,200
B-4	9,850	3,940
B-5	9,350	3,740
Sub Total	44,660	17,880
C-1	6,810	2,730
C-2	5,630	2,260
C-3	8,990	3,600
C-4	5,900	2,360
C-5	4,430	1,780
Sub Total	31,760	12,730
Total	115,930	46,430

CONSTRUCTION COST OF ELECTRIC POWER NETWORK
for THE STUDY AREA

Unit : 1000 LE

Facility	Capacity	Quantity	Construction Cost	
			Foreign	Local
Sub Station 20/0.4 KV	4x25 MVA	2 Unit	30,000	10,000
Power Line	66 KV	75 Km	7,000	8,000
"	20 KV	300 Km	8,000	10,000
Distributing Station	20 KV	3 Unit	-	3,000
Sub Station 20/0.4 KV	1000,500, 300 KVA	150 Unit	3,000	4,500
Power Line	400 Volt	500 Km	-	8,000
Total			48,000	43,500
				91,500

Unit : 1000 LE

Table I-33 CONSTRUCTION COST OF SEWAGE FACILITIES

Village	Popula- tion	Village Sewerage		Construction Cost						Total Cost			
		Area (faddans)	Discharge (m ³ /day)	Treatment Facilities		Pipeline Facility		Foreign	Local	Total	Foreign	Local	Total
				Foreign	Local	Foreign	Local						
A - 1	10,220	520	1,840	342	228	570	3,091	5,740	8,830	3,433	5,988	9,400	
A - 2	8,340	420	1,500	282	188	470	2,496	4,635	7,130	2,778	4,823	7,600	
A - 3	6,970	350	1,250	234	156	390	2,079	3,861	5,940	2,313	4,017	6,330	
A - 4	9,800	490	1,760	330	220	550	2,912	5,408	8,320	3,242	5,628	8,870	
A - 5	4,180	210	750	138	92	230	1,250	2,321	3,570	1,388	2,413	3,800	
Sub Total	39,510	1,990	7,100	1,326	884	2,210	11,827	21,964	33,790	13,153	22,848	36,000	
B - 1	12,780	640	2,300	426	284	710	3,805	7,066	10,870	4,231	7,350	11,580	
B - 2	9,690	490	1,740	324	216	540	2,912	5,408	8,320	3,236	5,624	8,860	
B - 3	2,990	150	540	102	68	170	893	1,658	2,550	995	1,726	2,720	
B - 4	9,850	500	1,770	330	220	550	2,972	5,519	8,490	3,302	5,799	9,040	
B - 5	9,350	470	1,680	312	208	520	2,793	5,187	7,980	3,105	5,395	8,500	
Sub Total	44,660	2,250	8,030	1,494	996	2,490	13,374	24,837	38,210	14,868	25,833	40,700	
C - 1	6,810	350	1,230	228	152	380	2,079	3,861	5,940	2,307	4,013	6,320	
C - 2	5,630	290	1,010	186	124	310	1,722	3,198	4,920	1,908	3,322	5,230	
C - 3	8,990	450	1,620	300	200	500	2,674	4,966	7,640	2,974	5,166	8,140	
C - 4	5,900	300	1,060	198	132	330	1,782	3,309	5,090	1,980	3,441	5,420	
C - 5	4,430	230	800	150	100	250	1,369	2,542	3,910	1,519	2,642	4,160	
Sub Total	31,760	1,620	5,720	1,062	708	1,770	9,625	17,875	27,500	10,687	18,583	29,270	
Total	115,930	5,860	20,850	3,882	2,588	6,470	34,825	64,675	99,500	38,707	67,263	105,970	

Table I-34 CONSTRUCTION COST OF REFUSE FACILITY

Unit : 1000 LE

Village Name	Population	Volume (ton/day)	Construction Cost		Total
			Foreign	Local	
A-1	10,220	5.1	2,115	2,585	4,700
A-2	8,340	4.2	1,728	2,112	3,840
A-3	6,970	3.5	1,445	1,766	3,210
A-4	9,800	4.9	2,030	2,481	4,510
A-5	4,180	2.1	864	1,056	1,920
Sub Total	39,510	19.8	8,181	9,999	18,180
B-1	12,780	6.4	2,646	3,234	5,880
B-2	9,690	4.8	2,007	2,453	4,460
B-3	2,990	1.5	621	759	1,380
B-4	9,850	4.9	2,039	2,492	4,530
B-5	9,350	4.7	1,935	2,365	4,300
Sub Total	44,660	22.3	9,248	11,303	20,550
C-1	6,810	3.4	1,409	1,722	3,130
C-2	5,630	2.8	1,166	1,425	2,590
C-3	8,990	4.5	1,863	2,277	4,140
C-4	5,900	3.0	1,220	1,491	2,710
C-5	4,430	2.2	918	1,122	2,040
Sub Total	31,760	15.9	6,575	8,036	14,610
Total	115,930	58.0	24,003	29,337	53,340

Table I-36 CONSTRUCTION COST OF PUBLIC SERVICE FACILITIES

Unit : 1000 LE

Village Name	Population	Governmental Office ^{1/}			Market/Shop/Bank			Social Community Center ^{2/}			Fire Station		
		Floor	F.C.	L.C.	Floor	F.C.	L.C.	Floor	F.C.	L.C.	Floor	F.C.	L.C.
A-1	10,220	1,100	113	307	420	1,200	75	245	300	0	0	0	0
A-2	8,340	900	95	256	350	1,000	63	188	250	0	0	0	0
A-3	6,970	800	84	226	310	1,000	63	188	250	1,000	122	348	470
A-4	9,800	1,100	113	307	420	1,100	70	210	280	0	0	0	0
A-5	4,180	500	51	139	190	500	33	98	130	0	0	0	0
Sub Total	39,510	4,400	456	1,234	1,690	4,800	303	908	1,210	1,000	122	348	470
B-1	12,780	1,400	146	394	540	1,800	173	518	690	1,000	122	348	470
B-2	9,690	1,100	113	307	420	1,100	105	315	420	0	0	0	0
B-3	2,990	300	32	88	120	300	30	90	120	0	0	0	0
B-4	9,850	1,100	113	307	420	1,100	105	315	420	0	0	0	0
B-5	9,350	1,000	105	285	390	1,100	105	315	420	0	0	0	0
Sub Total	44,560	4,900	510	1,380	1,890	5,400	518	1,553	2,070	1,000	122	348	470
C-1	6,810	700	73	197	270	800	50	150	200	0	0	0	0
C-2	5,630	600	62	168	230	600	38	113	150	0	0	0	0
C-3	8,990	1,000	105	285	390	1,300	83	248	330	1,000	122	348	470
C-4	5,900	600	62	168	230	700	45	135	180	0	0	0	0
C-5	4,430	500	51	139	190	500	33	98	130	0	0	0	0
Sub Total	31,760	3,400	354	956	1,310	3,900	248	743	990	1,000	122	348	470
Total	115,930	12,700	1,320	3,570	4,890	14,100	1,068	3,203	4,270	3,000	367	1,043	1,410

Village Name	Population	Hospital/Health Center			Mosque			Others ^{3/}			Total		
		Floor	F.C.	L.C.	Floor	F.C.	L.C.	Floor	F.C.	L.C.	Floor	F.C.	L.C.
A-1	10,220	250	124	186	310	250	28	83	110	600	64	156	220
A-2	8,340	250	124	186	310	200	23	68	90	500	52	128	180
A-3	6,970	500	252	378	630	150	18	53	70	1,200	125	303	430
A-4	9,800	250	124	186	310	200	23	68	90	600	64	156	220
A-5	4,180	250	124	186	310	100	13	38	50	200	20	50	70
Sub Total	39,510	1,500	748	1,122	1,870	900	103	308	410	3,100	325	795	1,120
B-1	12,780	500	252	378	630	250	28	83	110	2,000	209	511	720
B-2	9,690	250	124	186	310	200	23	68	90	500	52	128	180
B-3	2,990	250	124	186	310	150	18	53	70	200	20	50	70
B-4	9,850	250	124	186	310	200	23	68	90	600	64	156	220
B-5	9,350	250	124	186	310	200	23	68	90	500	52	128	180
Sub Total	44,560	1,500	748	1,122	1,870	1,000	113	338	450	3,800	397	973	1,370
C-1	6,810	250	124	186	310	150	18	53	70	400	41	99	140
C-2	5,630	250	124	186	310	150	18	53	70	300	32	78	110
C-3	8,990	500	252	378	630	200	23	68	90	1,500	157	383	540
C-4	5,900	250	124	186	310	150	18	53	70	300	32	78	110
C-5	4,430	250	124	186	310	100	13	38	50	200	20	50	70
Sub Total	31,760	1,500	748	1,122	1,870	750	88	253	350	2,700	281	689	970
Total	115,930	14,500	2,244	3,366	5,610	2,650	303	908	1,210	9,600	1,003	2,457	3,460

Note: 1/ Include Telephone Office, Post Office and Police Office
 2/ Include Cinema/Theater
 3/ Bus Station, Fuel Service Station, Mechanical Service Station etc.

Table I-37

CONSTRUCTION COST OF HOUSING - 1st Stage

Unit : 1000 LE

Village Name	Type 1 (for Bedouin & Labor) 42. m ² [5.2750 EL/unit]		Type 2 (for Grad. & s/Farmer) 65.7 m ² [21.350 EL/unit]		Type 3 (for Official Staff) 89.2 m ² [31.990 EL/unit]		Type 4 (for Small Investor) 87.5 m ² [29.810 EL/unit]		Type 5 (for Large Investor) 111.7 m ² [46.610 EL/unit]		Total														
	No.	Foreign Local	No.	Foreign Local	No.	Foreign Local	No.	Foreign Local	No.	Foreign Local															
A-1	1,429	4,555	13,665	18,220	265	1,415	4,245	3,600	340	2,653	7,958	10,610	0	0	0	0	0	10	118	352	470	3,740	26,229	34,960	
A-2	1,377	4,390	13,170	17,560	0	0	0	0	280	2,185	6,555	8,740	0	0	0	0	0	11	130	390	520	6,705	20,115	26,820	
A-3	1,156	3,685	11,055	14,740	0	0	0	0	230	1,795	5,381	7,180	0	0	0	0	0	8	95	285	380	5,575	16,725	22,300	
A-4	1,481	4,720	14,160	18,880	138	738	2,213	2,930	330	2,575	7,725	10,300	0	0	0	0	0	10	118	352	470	8,150	24,450	32,600	
A-5	610	1,945	5,835	7,780	82	438	1,313	1,750	140	1,093	3,278	4,370	0	0	0	0	0	4	48	142	190	3,523	10,568	14,090	
Sub Total	6,653	19,293	57,885	77,180	485	2,590	7,770	10,360	1,320	10,360	30,400	41,200	0	0	0	0	0	43	508	1,523	2,040	32,683	98,078	130,770	
B-1	2,115	6,743	20,228	26,970	0	0	0	0	430	3,355	10,063	13,420	0	0	0	0	0	11	130	390	520	10,228	30,683	40,910	
B-2	1,605	5,115	15,345	20,460	0	0	0	0	320	2,498	7,493	9,990	0	0	0	0	0	13	153	458	610	7,765	23,295	31,060	
B-3	1,291	413	1,238	1,650	370	1,975	5,923	7,900	100	780	2,340	3,130	0	0	0	0	0	0	0	0	0	3,198	9,503	12,670	
B-4	1,828	5,188	15,563	20,750	0	0	0	0	330	2,575	7,725	10,300	0	0	0	0	0	12	153	458	610	7,915	23,765	31,680	
B-5	1,548	4,933	14,798	19,750	0	0	0	0	310	2,420	7,260	9,680	0	0	0	0	0	12	140	420	560	7,493	22,478	29,970	
Sub Total	7,025	22,390	67,170	89,560	370	1,975	5,925	7,900	1,490	11,628	34,883	46,510	0	0	0	0	0	49	575	1,723	2,300	36,568	109,703	146,270	
C-1	1,073	3,420	10,260	13,680	0	0	0	0	230	1,795	5,385	7,180	53	475	1,425	1,900	0	0	0	0	0	0	5,690	17,070	22,760
C-2	888	2,830	8,490	11,320	0	0	0	0	190	1,483	4,448	5,930	48	395	1,185	1,530	0	0	0	0	0	0	4,708	14,123	18,830
C-3	1,350	4,303	12,908	17,210	88	470	1,410	1,880	300	2,343	7,028	9,370	61	498	1,493	1,990	0	0	0	0	0	0	7,613	22,898	30,510
C-4	254	810	2,430	3,240	720	3,878	11,633	15,510	200	1,560	4,680	6,240	0	0	0	0	0	0	0	0	0	0	6,248	18,743	24,990
C-5	191	608	1,823	2,430	546	2,913	8,738	11,650	150	1,170	3,510	4,680	0	0	0	0	0	0	0	0	0	0	4,650	14,070	18,720
Sub Total	3,756	11,970	35,910	47,880	1,360	7,260	21,780	29,040	1,070	8,350	25,050	33,400	167	1,368	4,103	5,470	0	0	0	0	0	0	28,948	86,843	115,790
Total	16,833	53,655	160,965	214,620	2,215	11,825	35,475	47,300	3,880	30,278	90,832	121,110	167	1,368	4,103	5,470	92	1,083	3,248	4,330	5,840	48,208	144,923	192,892	

CONSTRUCTION COST OF HOUSING - 2nd Stage

Unit : 1000 LE

Village Name	Type 1 (for Bedouin & Labor) 58.5 m ² [16.050 EL/unit]		Type 2 (for Grad. & s/Farmer) 52.5 m ² [17.060 EL/unit]		Type 3 (for Official Staff) 42 m ² [14.700 EL/unit]		Type 4 (for Small Investor) 74 m ² [27.750 EL/unit]		Type 5 (for Large Investor) 94.5 m ² [39.690 EL/unit]		Total														
	No.	Foreign Local	No.	Foreign Local	No.	Foreign Local	No.	Foreign Local	No.	Foreign Local															
A-1	1,429	5,733	17,198	22,930	265	1,180	3,390	4,520	340	1,250	3,750	5,000	0	0	0	0	0	10	100	300	400	8,213	24,638	32,850	
A-2	1,377	5,243	16,575	22,100	0	0	0	0	280	1,090	3,090	4,120	0	0	0	0	0	11	110	330	440	6,665	19,995	26,660	
A-3	1,156	4,640	13,920	18,560	0	0	0	0	230	845	2,535	3,380	0	0	0	0	0	8	80	240	320	5,565	16,695	22,260	
A-4	1,481	5,943	17,828	23,770	198	590	1,770	2,360	330	1,213	3,628	4,850	0	0	0	0	0	10	100	300	400	7,845	23,535	31,380	
A-5	610	2,448	7,343	9,790	82	350	1,050	1,400	140	515	1,545	2,060	0	0	0	0	0	4	40	120	160	3,553	10,058	14,410	
Sub Total	6,053	24,288	72,863	97,150	485	2,070	6,210	8,280	1,320	4,853	14,558	19,410	0	0	0	0	0	43	430	1,290	1,720	31,610	94,920	126,560	
B-1	2,115	8,758	25,463	33,950	0	0	0	0	430	1,580	4,740	6,320	0	0	0	0	0	11	110	330	440	10,178	30,523	40,710	
B-2	1,605	6,440	19,320	25,760	0	0	0	0	320	1,175	3,525	4,700	0	0	0	0	0	13	130	390	520	7,745	23,235	30,980	
B-3	1,229	518	1,553	2,070	370	1,578	4,733	6,310	100	968	1,103	1,470	0	0	0	0	0	0	0	0	0	2,463	7,388	9,850	
B-4	1,628	6,530	19,590	26,120	0	0	0	0	330	1,213	3,628	4,850	0	0	0	0	0	12	130	390	520	7,873	23,618	31,490	
B-5	1,548	6,210	18,630	24,840	0	0	0	0	310	1,140	3,420	4,560	0	0	0	0	0	12	120	360	480	7,470	22,410	29,880	
Sub Total	7,025	28,185	84,555	112,740	370	1,578	4,733	6,310	1,490	5,475	16,425	21,900	0	0	0	0	0	49	490	1,470	1,960	35,728	107,183	142,910	
C-1	1,073	4,305	12,915	17,230	0	0	0	0	230	845	2,535	3,380	58	403	1,208	1,610	0	0	0	0	0	0	5,553	16,658	22,210
C-2	888	3,563	10,688	14,250	0	0	0	0	190	698	2,098	2,790	48	333	998	1,330	0	0	0	0	0	0	4,593	13,778	18,370
C-3	1,350	5,418	16,253	21,670	88	375	1,125	1,500	300	1,103	3,308	4,410	61	420	1,260	1,660	0	0	0	0	0	0	7,315	21,945	29,260
C-4	254	1,018	3,053	4,070	726	3,098	9,293	12,390	200	735	2,205	2,940	0	0	0	0	0	0	0	0	0	0	4,850	14,555	19,400
C-5	191	765	2,295	3,060	546	2,328	6,983	9,310	150	553	1,658	2,210	0	0	0	0	0	0	0	0	0	0	3,645	10,935	14,580
Sub Total	3,756	15,068	45,203	60,270	1,360	5,800	17,400	23,200	1,070	3,933	11,798	15,730	167	1,155	3,465	4,620	0	0	0	0	0	0	25,955	77,865	103,820
Total	16,833	67,540	202,620	270,160	2,215	9,448	28,343	37,790	3,880	14,260	42,780	57,040	167	1,155	3,465	4,620	92	820	2,760	3,680	4,920	93,328	279,988	373,290	
U/Total	28,800 LE/unit		45,920 LE/unit		60,960 LE/unit		86,600 LE/unit		116,600 LE/unit		156,600 LE/unit												279,988 LE/unit		
G/Total	121,195,365,818,85,090		144,538,133,618,178,150		191,530,574,590,766,126		252,523,758,810,990		320,608,8,010,910		428,270,948,392,830												500,746,948,392,830		

Note : NSDO will provide housing only for OFFICIAL STAFF (Type 3).

Table I-38 Construction Schedule and Total Cost related to the Agro-processing Project

Unit: 10³ LE

	2005		2006		2007		2008		2009		2010		Total		
	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	
Concentrated Feed Factory	2,876	2,507	4,313	3,760									7,189	6,267	13,456
Tomato Pastes Factory	17,884	5,865	13,413	4,398	13,413	4,398							44,710	14,661	59,371
Olive Oil Extraction Factory					5,828	4,991	5,828	4,991	8,742	7,502			29,140	24,986	54,126
Slaughter House	1,615	1,489	1,615	1,489	2,422	2,232	2,422	2,233					8,074	7,443	15,517
Milk Processing Factory			3,403	4,942	3,403	4,942	4,536	6,589					11,342	16,473	27,815
Total	22,375	9,861	22,744	14,589	25,066	16,563	12,786	13,813	8,742	7,502	8,742	7,502	100,455	69,830	170,285

Table I-39 Summary of Construction Cost on the Agro-processing Project

No.	Description	Total	F.C L.C	
			(' 1000LE)	
1.	Concentrated feed factory	13,456	7,189	6,267
2.	Tomato paste factory	59,371	44,710	14,661
3.	Olive oil extraction factory	54,135	30,254	23,881
4.	Slaughter house	15,517	8,074	7,443
5.	Milk processing factory	27,815	11,342	16,473
Total(No 1. ~5.)		170,294	101,569	68,725

Table I-40 Breakdown of Concentrated feed factory

No.	Description	Qty	Unit	Rate (LE)	Total	F.C L.C	
						(' 1000LE)	
1) Main plant							
	Concentrated feed processing plant	4	Line	218,600	874	874	
	Weighing scale	4	set	2,500	10		10
	Air cleaner	2	set	12,000	24		24
	Grains storage tanks(2,000t/set)	14	set	600,000	8,400	4,200	4,200
	Packing stand	2	set	650	1		1
	Beltoconveyer	4	set	50,000	200	200	
	Forklift	4	set	167,000	668	668	
	Spareparts(10%)				1,018	594	424
	Sub-total				11,195	6,536	4,659
2) Building							
	Processing buildings	576	sq. m	720	415		415
	Package container room	42	sq. m	570	24		24
	Management room	60	sq. m	720	43		43
	Packed Concentrated feed loading floor	100	sq. m	570	57		57
	Concentrated feed Storage house	200	sq. m	570	114		114
	Miscellaneous(10%)				65		65
	Sub-total				718		718
3) Grain receive platform							
		1,600	sq. m	200	320		320
4) Engineering fee(10%)							
					1,223	653	570
Total of 1)~4)					13,456	7,189	6,267

Table I-41 Breakdown of Tomato paste factory

No. Description	Qty'	Unit	Rate (LE)	Total F.C L.C (' 1000LE)		
				Total	F.C	L.C
1) Main plant						
Juice preparation line	9	Line	684.250	6.158	6.158	
Juice concentration/paste sterilizatio	9	Line	2.394.963	21.555	21.555	
Can filling. seaming/cooling	9	set	1.026.375	9.237	9.237	
Miscellaneous(10%)				3.695	3.695	
Sub- total				40.645	40.645	
2) Equipment and furniture						
Office equipment and furniture		L.S		131		131
Laboratory equipment and furniture		L.S		228		228
Spare parts(10%)				36		36
Sub- total				395		395
3) Buildings						
Processing buildings	14.400	sq. m	350	5.040		5.040
Warehouse	6.000	sq. m	875	5.250		5.250
Laboratory and office	230	sq. m	1.313	302		302
Staff housing	1.378	sq. m	1.700	2.343		2.343
Sub- total				12.934		12.934
4) Engineering fee(10%)				5.397	4.065	1.332
Total of 1)~4)				59.372	44.710	14.661

Table I-42 Breakdown of Olive oil extraction factory

No. Description	Qty'	Unit	Rate (LE)	Per One Factory			Total Factory(31)		
				Total	F.C	L.C	Total	F.C	L.C
				(' 1000LE)			(' 1000LE)		
1) Main plant									
Olive extraction plant	3	Line	256.500	770	770		23.855	23.855	
Weighing scale	3	set	2.500	8		8	233		233
Crude oil storage tanks	3	set	3.000	9	4	5	279	153	126
Packing stand	3	set	650	2		2	60		60
Packing container	1.200	nos.	250	300		300	9.300		9.300
Boiler	1	set	4.500	5	3	2	140	84	56
Water pump	1	set	8.000	8		8	248		248
Spareparts(10%)				110	78	30	3.412	3.412	
Sub- total				1.212	855	355	37.527	27.504	10.023
2) Building									
Processing buildings	270	sq. m	720	194		194	6.014		6.014
Olive fruit storage room	160	sq. m	570	91		91	2.821		2.821
Oil cake storage room	80	sq. m	300	24		24	744		744
Boiler cabin	18	sq. m	430	8		8	248		248
Package container room	21	sq. m	570	12		12	372		372
Management room	30	sq. m	720	22		22	682		682
Sub- total				351		351	10.881		10.881
3) Platform									
Fruits receiving platfor	50	sq. m	200	10		10	310		310
Oil cake drying platform	80	sq. m	200	16		16	496		496
				26		26	806		806
4) Engineering fee(10%)				159	86	73	4.921	2.750	2.171
Total of 1)~4)				1.748	941	805	54.135	30.254	23.881

Table I-43 Breakdown of Slaughter house

No.	Description	Qty'	Unit	Rate (LE)	Total	F.C ('1000LE)	L.C
1)	Main building						
	Stunning room	72	sq. m	720	52		52
	Dressing room	360	sq. m	720	259		259
	Yard for cattle	580	sq. m	720	418		418
	Pool room	303	sq. m	300	91		91
	Refrigerating room	144	sq. m	720	104		104
	Refrigerating storage	650	sq. m	720	468		468
	General machine room	220	sq. m	720	158		158
	Treat Refrigerating room	591	sq. m	720	428		428
	Beef cattle receiving Platform	133	sq. m	290	39		39
	Treating room of viscera	400	sq. m	720	288		288
	Inspection room-Other room	514	sq. m	1,700	925		925
	Cold storage room	60	sq. m	720	2,233	2,233	
	Sub total				5,461	2,233	3,229
2)	Machineries and facilities						
	Machineries		L.S		2,675	2,675	
	Power line	1,333	m	300	400	200	200
	Cold storage		L.S		2,233	2,233	
	Water supply facilities		L.S		358		358
	Sanitary facilities		L.S		10		10
	Purification facilities		L.S		1,808		1,808
	Incinerate facilities		L.S		448		448
	Sub total				7,930	5,108	2,823
3)	Other						
	Enclosure	1,430	m	500	715		715
4)	Engineering fee(10%)				1,411	731	677
	Total of 1)~4)				15,517	8,071	7,413

Table I-44 Breakdown of Milk processing factory

No.	Description	Qty'	Unit	Rate (LE)	Total	F.C ('1000LE)	L.C
1)	Processing Equipment						
	Milk reception/recoaming				1,615	1,615	
	Pasteurization				931	931	
	U.H.T. Treatment				1,344	1,344	
	Asptic packing				950	950	
	Butter				96	96	
	Cheese				447	447	
	Cold store incubator				152	152	
	Boiler				299	299	
	Refrigeration				1,411	1,411	
	Water Air supply pump				52	52	
	Electrical installation				926	926	
	Stainless steel,Pipes/Fittings				185	185	
	Steel pipes,Fittings /Installation				214	214	
	Internal transport				29	29	
	Laboratory equipment				86	86	
	Miscellaneous dairy equipment				38	38	
	Workshop				57	57	
	Spare part				200	200	
	Sub total				9,031	9,031	
2)	Factory transport and Staff vehicles						
	Distribution Vans for milk products	4	set	65,200	261	261	
	Milk collection tankers				1,240		1,240
	Staff Vehicles				105		105
	Sub total				1,606	261	1,345
3)	Water treatment plant				314	63	251
4)	Effluent plant				597		597
5)	Distribution refrigeration equipment				1,310	655	655
6)	Erection/Running in				1,506	301	1,205
7)	Building						
	Processing buildings	4000	sq. m	1,240	4,963		4,963
	Foundation and external works				2,620		2,620
	Staff housing				3,339		3,339
	Sub total				10,922		10,922
8)	Engineering fee(10%)				2,529	1,031	1,498
	Total of 1)~8)				27,815	11,342	16,473