TABLE A-6.6.7 Prices and Annual Fixed Cost of Grassland Machineries

			Endurance		Annual fixed cost	cost	
Machinery	Specification	Price	Period	Depreciation	Maintenance Coefficient	Maintenance Cost	Totai
		R.O.	Yŗ	R.0.	%	R.O.	R.0.
Riding tractor	60 p.s.	8.000	S	1,600	7.00	560	2,160
Disc plow	14" × 3	1,100	ເດ	220	4.00	440	680
Disk harrow	20" ×24	1,500	വ	300	4.00	009	.006
Tooth harrow	30×4 rows	820	ខ	164	4.00	328	492
Manure spreader	V-shaft 2.3ton	3.000	ശ	009	3.00	06	9690
Front loader	1	2,300	2	460	2.00	46	506
Broadcaster	860 &	750	5	150	2.00	15	165
Packer seeder	2.4 m	2,950	ıc	590	4.00	118	708
Total		20,420	1	4.084	ſ	2.197	6.281

(2) Management, Harvest and Transport Works

			Endurance		Annual fixed cost	cost	
Machinery	Specification	Price	Period	Depreciation	Maintenance Coefficient	Maintenance Cost	Total
		R.O.	γr	R.0.	%	R.O.	R.O.
Riding tractor	60 p.s.	8.000	ιο *	1,600	7.00	560	2,160
Broadcaster	₹ 099	850	5	170	2.00	11	187
Rotary mower	2.0 т	2.700	ιo	540	5.00	135	675
Tedder	4 rotor	1,650	2	330	4.00	99	396
Rake	cylinder type	1.750	rc)	350	4.00	7.0	420
Tight baler	$40 \times 40 \times 50$ cm	9,300	то *	1.860	5.00	465	2.325
Front loader	İ	2,300	ഹ	460	2.00	46	506
Truck	4 ton	10,000	5	2.000	5.00	500	2.500
Total	,	36,550	1	7,310	1 .	1,859	9,169

1. Prices are according to the reserch report edited by National Federation of Farmers Cooperatives.

Endurance year, Final selling rate and maintenance coefficient is quoted from Norin Tokei Kyokai, 1985.4.

Endurance year with * is assumed as 5 years, in spite that its life time being 8 years.

TABLE A-6.6.8 Variable Cost for Grassland Machineries

) Land Reclamation and Seeding Works (For 25ha)

		Machinery	Working hours	s hours	011		M.	Variable cost	1	
+- 0	Machinery	operating	Operator	Assistant	Consumption	Oil cost	Lubrication	Labour cost	cost	
		time hr	Ë	in de la constant de		R.0.	oil cost *	Operator R.O.	Assistant R.O.	Total R.O.
Compost spreading	Manure spreader	25.0	75.0	75.0	225	22.5	8.8	136.4	70.5	236.2
,	Front loader	25.0			225	22.5	8.8	ľ		29.3
Plowing	Bottom plow	25.0	62.5	62.5	450	45.0	13.5	113.6	58.7	230.8
Harrowing	Disk harrow	50.0	62.5	ı	450	45.0	13.5	113.6	-	172.1
Reclamation	Tooth harrow	50.0	37.5	l	225	22.5	6.8	2.89	1	97.5
Fertilization	Broadcaster	25.0	50.0	0.03	180	18.0	5.4	80.9	47.0	161.3
Seeding	Packer seeder	37.5	62.5	125.0	270	27.0	8.1	113.6	117.4	266.1
Rolling	Packer seeder	25.0	37.5	1	180	18.0	5.4	68.2	_	91.6
	Total	262.5	387.5	312.5	2.205	220.5	66.3	704.5	293.6	1,284.9

Note) * Lubrication oil cost = 30% of oil cost

TABLE A-6.6.8

59.9 120.2 214.5 62.9 92.4 308.1 308.1 1.166.1 R.0. Total 488.5 Assistant 187.9 187.9 16.4 23.5 56.4 16.4 1 R.0. Labour cost Variable cost 90.9 Operator 490.8 109.0 31.8 90.8 6.06 45.5 31.8 R.O. Lubrication oil cost* 43.2 8.8 φ. ∞ 2,7 8.8 3.4 5.4 11.3 R.0. 22.5 9.0 22.5 22.5 143.6 18.0 37.8 11.3 Oil cost R. 0. Consumption 180.0 377.5 90.0 225.0 225.0 225.0 1,412.5 112.5 011 æ Assistant 17.5 200.0 200.0 520.0 25.0 60.09 17.5 Working hours ı μ Operator 7 50.0 50.0 50.0 270.0 25.0 60.0 17.5 Ę, operating Machinery 52.5 25.0 12.5 20.0 12.5 25.0 25.0 172.5 time 'n Packer seeder Front loader Rotary mower Machinery Tight baler Broadcaster Tedder Total Rake Compost spreading tem Turning over Gathering Packing Reaping Loading

Management and Harvest (per one harvest)

(3)

Note) * Lubrication oil cost = 30% of oil cost

(3) Transportation Work (per one harvest)

·	/*·			TABLE
		Total	R.0.	671.5
	cost	Operator Assistant	R.0.	281.8
Variable cost	Labour cost	Operator	R.O.	272.7
Λ	್ಷ	oil cost*	R.O.	27.0
	Oil cost		R.O.	90.0
011	Assistant Consumption 011 cost		8	0.008
Working hours	Assistant		ᅺ	300.0
Working	Operator		hr	150.0
Machinery	operating	time	'n	100.0
	Machinery			Truck
and the state of t				Transportation

Note) * Lubrication oil cost - 30% of oil cost

TABLE A-6.6.9 Grass Production Cost per one farm of 50ha for a period of 5 years

lte	ent		Quant1ty	Unit rate	Cost (R.O.)	Romarks
1. Seed 2. Compost	Organisa (Para Santa		kg 1,500 t 500	5.8 23.3	8.700 11.650	
3. Chemical fertilizer	Basal dose		t 62.50 t 900	70.0 70.0	4.375 63.000	40 times
4. 0il consumption	LR MIIT		1 4.400 1 185.000	0.1 0.1	440 18.500	40 times
5. Lubrication oil	LR MIT				132 5.550	30% oil consumption
6. Rope			role 4.000	10	40.000	
7. Manual	operator	LR MHT	hour 775 hour 33.600	1.8	1.195.0 60.480	40 times
Labour	assistant	LR MIT	hour 625 hour 65.600	1.0 1.0	625 65.600	40 times
8. Depreciation	LR MHT				4.084 73.100	
9. Maintenance cost	LR MHT				2.197 18.590	5 years
Total	· · · · · · · · · · · · · · · · · · ·				378.218	

LR-land reclamation. MHT-Maintenance, harvest and transport

¹⁾ Time limit to keep grassland-5 years

^{2) 10} times harvest in a year. 40 times of harvest in 5 years

³⁾ Total production of dry grass 4-5 t/ha in one time. 8.000 \sim 10.000 t/50ha in 40 times of harvest

^{*} Production cost of 1ton of dry grass = $\frac{378.218}{(8.000 \sim 10.000)}$ = 38 \sim 47 R.O.

2) Variable cost

The variable cost for 25 ha area is shown in TABLE A-6.6.8 since the area of one unit of farm for land reclamation and grass production is planned as 25 ha.

The total variable cost for land reclamation and seeding work is 1,284.9 R.O. For management and harvest work the total variable cost is 1,166.1 R.O. and for transport it amounts to 671.5 R.O. for each time of harvest operation.

3) Grass production cost

Grass production cost per one farm of 50 ha area for a period of 5 years is shown in Table A-6.6.9.

The total production cost amounts to 378,218 R.O., assuming 40 times of harvest in 5 years.

Production cost for 1 ton of dry grass is 38 - 47 R.O.

TABLE A-6.6.10

TABLE A-6.6.10 Quantity Estimation for the Project of the Case Study

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NO.		Depth=330m-2Nos Depth=430m-2Nos Depth=330m-2Nos Depth=430m-2Nos 45KW T.H=50m-2Nos 255q.m - 2Nos 65KVA-2Nos 60 sq.m	E 9	4WD-1NO, M. C-1No	-AREA -AREA AREA AREA
ICAI		230 230 230 30 30 30 30 30 30 30 30 30 30 30 30 3	. H=6(-2No; In	æi og	al) Nagha Nagha Dauka-
SPECIFICATION	50на	Depth=330m-2N/ Depth+430m-2N/ Depth+330m-2N/ Depth+430m-2N/ 45KW T. H=50m-/ 25sq.m - 2Nos 65KV4-2Nos 60 sq.m	65KW.T.H=60m 48 sq.m 100KVA-2Nos 60 sq.m 6-400m d=400m 3Line-Tree	10-11	(Renewal NA(ewal)NA(DA)
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MS	RY W	DU'N WELL DU'N WELL TI'N WELL PUMP HUT RATOR HU RAGE-L ROAD	ARANA	>	ting ting
TEMS	PREPARATRY WILLAND RECLAMA	PRODU'N WELL PRODU'N WELL MONIT'N WELL S.H. PUMP PUMP HUT GENERATOR GENERATOR STORAGE-L O/M ROAD ONNECTION ROAD	MANGE THE POINT FACTOR TO SOUTH POINT POIN	HOUS ING VEHICLE MACHINAR	Seeding Seeding (Renewal) SUM Harvesting Renewal)NAGHA -AREA Harvesting (Renewal)NAGHA -AREA Harvesting (Renewal)DAUKA-AREA SUM
-	PREPARATRY LAND RECLAI	A PRODUCT WELL DE PRODUCT WELL DE PRODUCT WELL DE MONITON WELL DE S.H. PUMP A 4 FOURP HUT 29 GENERATOR HUT 6 I STORAGE-L JOAN ROAD CONNECTION ROAD		HOUS ING VEH I CLE	a Seeding b Seeding (Renewal) SUM C Harvesting (Renewal)NAGHA d Harvesting (Renewal)NAGHA e Harvesting (Renewal)DAUKA- I Harvesting (Renewal)DAUKA-
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: Rials Omani	TOTAL	75,000 6,250	1, 309, 850 1, 178, 865 168, 375 86, 875	247,500 7,608,610	325, 850 1, 517, 500 60, 000	417, 100 417, 100 376, 240 162, 070	280.190 173,180 797,170 257,110	15.230	110.000	593, 750 12, 965, 250	73, 500 40, 840 731, 000	845, 340 13, 810, 590 74, 000	157.	15, 048, 590 1, 504, 858	16.553,448
Unit	DAUKA-5	7,500	149, 100 134, 190 0	507, 885 41, 250 832, 426	32, 585 151, 750 6, 000	37, 624 16, 207	28.019 77.318 79.717 75.717	1,523	0	59,375 1,357,090	7,350	80, 450 1, 437, 540 7, 400	5, 700	1, 565, 640 156, 564	1, 722, 204
Study	NAGHA -5	7.500	112, 870 101, 583 33, 675 17, 375	507, 886 0 773, 389	32, 585 151, 750 6, 000	37, 624 16, 207	28.019 17.318 79.717 25.711	1,523	0	59, 375 1, 298, 053	7, 350	80, 450 1, 378, 503 7, 400	110,000	1, 501, 603 150, 160	1,651,763
Case	DAUKA-4	7.500	149, 100 134, 190 0	507, 886 41,250 832, 426	32,585 151,750 6,000	41,710 37,624 16,207	28.019 17.318 79.717 25.711	1,523	0	59,375 1,357,090	73,100	80,450 1,437,540 7,400	5, 700	156, 564	1. 722, 204
of the	NAGHA -4	7.500	112,870 101,583 33,675 17,375		32.585 151,750 6,000	37, 624 16, 207	28,019 79,717 25,717	1,523	0	59.375 1,339,303	7,350	80, 450 1, 419, 753 7, 400	5, 700 114, 000	154, 685	1, 701, 538
Project	DAUKA-3	7, 500		507, 886 41, 250 832, 426	32, 585 151, 750 6, 000	41, 710 37, 624 16, 207	28.019 77.318 79.717 25.711	1,523	0 .	59.375 1,357.090	7, 350 20, 420 73, 100	1,457,960 7,400	5,700	158, 806	1, 746, 866
the	NAGHA -3	7.500	112.870 101.583 33.675 17.375		32, 585 151, 750 6, 000	41, 710 37, 624 16, 207	28, 019 17, 318 79, 717 25, 711	1,523	0	59, 375 1, 339, 303	7, 350	80, 450 1, 419, 753 7, 400	5.700	154, 685	1, 701, 538
ites for	DAUKA-2	7,500	149, 100 134, 190 0	507, 886 0 791, 176	32, 585 151, 750 6, 000	41,710 37,624 16,207	28,019 17,318 79,717 25,711	1,523	0	59.375 1,315,840	7.350	396, 290 7, 400	5, 700	152, 139	1,673,529
-estima	NAGHA -2	7.500	112,870 101,583 33,675 17,375	507, 886 41, 250 814, 639	32, 585 151, 750 6, 000	41.710 37.624 16.207	28,019 17,318 79,717 25,711	1,523 457,164	0	59, 375. 1, 339, 303	7,350	80, 450 1, 419, 753 7, 400	5, 700	154, 685	1,701,538
Cost-est	DAUKA-1	7.500	149, 100 134, 190 0	46, 171 0 329, 461	32,585 151,750 6,000 19,000	41,710 37,624 18,207	28,019 17,318 79,717 25,711	1,523 457,164	100,000	59.375 954,125	7,350	1, 034, 575 7, 400	966	113,068	1,243,743
A-6.6.11	NAGHA -1	7, 500 625	112, 870 101, 583 33, 675 17, 375	507, 886 0 773, 389	32, 585 151, 750 6,000 19,000	41, 710 37, 624 16, 207	28, 019 17, 318 79, 717	1,523	10.000	59,375 1,308,053	7, 350 20, 420 73, 100	1, 408, 923 7, 400	5, 700 113, 000	153, 502	1,688,525
TABLE	ITEMS	1 CIVIL 1-1 PREPARATRY WORKS 1-2 LAND RECLAMATION 1-3 INTAKE-FACILLITY	,,,,,,,,,,	e SIORAGE-E f O/H ROAD * SUN 1-4 TRRIGATION-FACTIITY	·	d LINE FOR DRIP E LINE FOR C.P f DRIP SYSTEM	g CENTRE PIVOT h WINDBREAK-TREE i WINDBREAK-FENCE j TRUNK ROAD	k CULTIVATION PASS * SUM	1-5 CONECTION ROAD	1-6 HOUSING ** TOTAL	2 EQUIPM'T 2-1 VEHICLE 2-2 HACHINARY Seeding HARVEST	3 TOTAL (1-2) 4 PROJECT FACILITY		7 SUB-TOTAL (3+4+5+6) 8 PHYSICAL CONTINGENCY(6 × 0.1)	9 GRAND TOTAL (7-8)

TABLE A-6.6.12 Summary of Annual O/M Cost on Each Works

Unit : Rials Omani LIEMS Specification Durable Hainte'ce Cost Depreci-Hainte'ce Tuel Total ation Cost Period Ratio Cost 1 Water Resources for NAGHAH-ARLA 3, 762 3, 762 a Production Well Depth-330m 2Nos 0.0% 112,870 0 30yr 3,386 101,583 3,386 b Monitoring Well Depth-330m 2Nos 30yr 0.0% ٥ 0 10yr 27, 425 6, 250 2,743 549 0 3,292 c Sumersible Pump T. H 50m 45KW 2.0% 214 d Pump Hut 0.1% 208 6 ٥ 25s, n 30yr 16,067 e Generator G5KVA-2NOS 9,875 988 494 17,549 10yr 5.0% 258 f Generator Hut 0.1% 7,500 250 30yr 60s, m 11, 337 16,067 28,461 1.057 SUB-TOTAL g O/H Road 11km 30yr 0.1% 41,250 41 1,416 16,067 29,877 12,712 1,098 SUM 2 Water Resources for DAUKA-AREA 149, 100 4,970 4,970 0 a Production Well Depth 430m 2Nos 30yr 0.0% b Monitoring Well Depth-430m 2Nos 30yr 0.0% 134, 190 4,473 0 4;473 9,443 1,416 0 0 9,443 SUB-TOAL c O/H Road 30уг 0.1% 41,250 375 41 11kg 10,818 10,859 41 SUM 17,438 16,930 508 0 3 Storage Line 11Km 30yr 0.1% 507,886 1,585 4 Storage Line 1Km 30yr 0.1% 46, 171 1,539 46 Ó 5 On-Farm Facility 1,119 a Farm Pond 30yr 0.1% 32,585 1.086 33 0 151,750 15, 175 7,588 22,763 0 b Booster Pump T. II-60m 65KW 10yr 5.0% 206 c Pump Hut 30yr 0.1% 6,000 200 6 n 48s. m 11,500 1; 150 12,944 14,669 d Generator 100KVA-2NOS 10yr 5.0% 575 7,500 250 258 0 8 e Generator Hut 60s. m. 30yr 0.1% 3,403 3,241 f Drip System 5vr 1.0% 16, 207 162 0 30yr 41,710 1,390 0 1,432 0.1% 42 g time for Drip h Line for C.P. 30vr 0.1% 37,624 1,254 38 0 1;292 2,802 0 3,643 28,019 841 3.0% Centre Pivot r≈400ฆ 10yr 0 883 j Trunk Road 30yr 0.1% 25,711 857 26, 1,523 53 k Cultivation Pass 30yr 0.1% 51 2 0 594 1 Windbreak Tree 30yr 0.1% 17,318 577 .17 0 m Windbreak Tence 1.0% 79,717 7,972 797 8,769 10yr 36,005 10, 135 12,944 59,084 SUH 0 343 6 Connection Road 30yr 0.1% 10,000 333 10 1Kp 0 3,433 3,333 100 7 Connection Road 10Km 30yr 0.1% 100,000 0 2,038 1,979 59 8 Nousing 30yr 0.1% 59, 375 200 1,303 7,350 735 368 9 Vehicle 4WD & H.C 5.0% 10yr 10 On-Farm Machinary 20,420 6,8554,084 a Stabilization 5yr 10.8% 2, 197 511 23, 148 b Harvesting 5.1% 73, 100 14,620 3,718 4.810 5yr

18,704

5,915

SUH

30,003

5, 384

520 527 543 543 905 232 232 250 250 250 021 Rials Omani 327 620 990 710 710 550 550 690 690 942 د<u>ب</u> ٥ TOTAL 158 358 358 089, 816, 38, 002, o 284, 753, H . 왕 Rials ဖ် YEAR UKA-5 9, 443 17, 438 1, 416 28, 297 736, 400 0, 016 59,084 2,038 61,122 1,303 6,855 23,148 30,003 YEAR 776 840 380 220 030 855 480 335 725 520 527 496 543 000 021 8 189.1 158.1 356.1 0 10th DAU 120, 10th . 222. 17 the Project 9th YEAR NAGHA -5 461 438 400 400 926 084 038 122 303 303 148 003 YEAR 776 756 342 098 727 727 855 332 327 077 089 080 246 600 021 937 1, 736. 180, C 141, C 7, C 328, C 627, C 8,449,49,88 33 3, 18, 11, 11, 208, 215, 1, 109, (₹. YEAR UKA-4 4443 416 416 400 400 400 084 038 122 303 303 148 003 YEAR 725 916 980 980 200 020 776 672 304 976 976 976 1855 184 039 562 977 - 880 33,6,1,1,2,5 472. (16. 10. 10. 185. (185. (120, 151, 123, 7, 282, 891, 0. oth Dau Cos. 977 Farm for € 7th YEAR NAGHA -4 28, 461 17, 438 1, 416 47, 315 1, 736, 400 0, 027 YEAR 984 122 303 148 935 935 935 743 776 588 266 854 854 855 036 891 X/0 173 213 864 950 921 692 142, 106, 5, 254, 0. 39 413, 14,2 9, 168, 7. 883, \simeq 6th YEAR DAUKA-3 Annua Each 443 438 416 297 400 400 084 038 038 303 148 003 YEAR 712 775 248 735 400 020 3,776 354,504 12,228 366,732 7,818 6,855 138,888 145,743 725 804 738. 208. 418. 33,20,1,1,2,5 120, 730, Į 5th YEAR NAGHA -3 28, 461 17, 438 1, 416 47, 315 0. 027 084 038 038 303 148 003 YEAR 269 337 832 832 837 821 821 776 420 190 610 610 515 740 740 595 934 Accumulate 104.2 71.5 178.1 682. cost 8,27£,08,08,08 88 295, 305, 9, 115, 122, 616, 5th 4th YEAR DAUKA-2 75,808 53,899 131,123 945,600 0,019 9,443 17,438 26,881 36,400 0.015 **X**/0 59,084 2,038 61,122 1,303 6,855 6,855 30,003 YEAR 309 776 336 152 488 212 212 855 592 447 26.8 1,736,7 0. 6 \$ 4th Summary of 66, 365 36, 461 1, 416 104, 242 209, 200 0, 020 3rd YEAR NAGHA -2 o O 461 438 416 315 400 027 084 038 122 303 303 148 003 YEAR 743 776 252 252 114 366 366 366 444 299 299 265 177 288 33.6-9.23 33 37 3rd Summary 2nd YEAR DAUKA-1 9, 443 1, 585 1, 028 0, 008 0, 008 56, 927 472, 800 0, 016 YEAR 433 084 038 122 303 303 148 003 904 023 0 889 776 168 076 076 076 855 855 296 151 704 1 736 8,8,9,4,9,4,8,8 50 238, 8 2nd က 1St YEAR NAGHA -1 28, 461 17, 438 0 438 0 899 400 026 343 084 038 122 303 148 003 839 400 026 A-6.6 670 343 084 038 122 303 148 003 670 736, 0. **138** 736. 0. 85.05 10.05 88 88 -TABLE (€.3) £ Î (R.0) (R.0) (R.0) (R.0) WATER(C.N. 0) 0) 0) 0) WATER 0/C. H) 6666666 66666666 6 6 <u>ಆಡಡಡಡಡಡ</u> æ <u>ਫ਼ਫ਼ਫ਼ਫ਼ਫ਼ਫ਼</u> æ, 1 WATER RESOURCE (R. 0)
2 STORAGE LINE (R. 0)
3 O/H ROAD (R. 0)
*SUH
4 DEVELOPED YIELDED M/5 WATER COST (R. 0)/6 6 CONNECTION ROAD
7 ON-FARM FACILITY
8 HOUSING
*SIM(7 & 8)
9 VEHICLE
10 SEEDING
11 HARVESTING
*SUM (10 & 11 6 CONNECTION ROAD 7 ON-FARM FACILITY 8 HOUSING *SUM (7 & 8) 9 VEHICLE 10 SEEDING 11 HARVESTING *SUM (10 & 11) DEVELOPED YIELDED WATER COST RESOURCE GE LINE TEMS EM 1 WATER RESC 2 STORAGE L. 3 O/M ROAD *SUM TOTAL TOTAL 4 10

6.6.5 Cost Estimation for farm dispersal case (Semi-scattered type)

As discussed in section 6.3.3 in the Main Report, four areas viz. Nagha area, Dauka area, Shasr area and Wadi Makhawrim area were proposed and amoung there four areas Nagha & Dauka areas were selected for the case study and cost-estimation were made as discussed in the previous sections.

As a case-study, Nagha and Dauka areas were selected as the suitable development areas because of the reasons discussed in section 6.6.3. The final site selection should be done based on the land use plans which are currently being prepared for P.C.D.E.S.R.

As a possible alternative to the case study mentioned in the previous sections, a cost estimate has been made, considering that the agriculture development will be made in all the four areas.

The location of the farms and production wells for the dispersal case (Semi-scattered type) is shown in FIG. A-6.6.4 and the cost estimate is shown in TABLE A-6.6.14. Although the cost for the intake facility is lesser than case study project (TABLE A-6.6.11), the cost for the connection road is much higher than previous case ultimately, the average construction cost of a 50 ha farm is higher, which amounts to R.O.2,119,300.

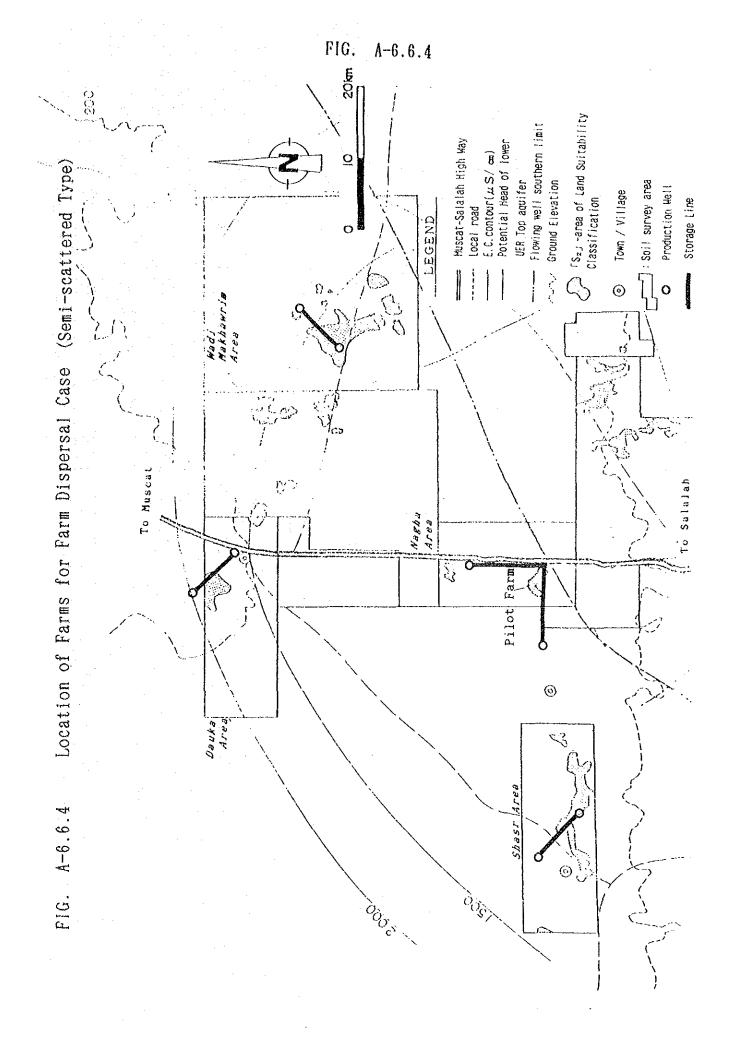


TABLE A-6.6.14 Project Cost Estimate of Farm Dispersal Case

				7.72	OULOD	(PAD) 13
TEMS	DAUKA	MADI MOKHA	WADI MOKIIA	NAGHA	SHASR	TOTAL
		WRIM - 1	WRIM - 2	100114	150 HA	500114
1 OLBIL WORKS	10011A	5011A	100llA	100114	Lao na	300118
1. CIVIL WORKS	1.5000	2500	1.000	1.000	22500	75000
1-1 PREPARATORY WORKS	15000	7500	15000	15000		
1-2 LAND RECLAMATION	1250	625	1250	1250	1875	6250
1-3 INTAKE FACILITY			000000	0.057.10	000010	1900050
PRODUCTION WELL	298200	149100	298200	225740	338610	1309850
MONITORING WELL	268380		268380	203166	304749	1178865
SUBM. PUMP & HUT	0	33675	67350	67350	0	168375
GENER. & HUT	0	17375	34750	34750	0	86875
STORAGE LINE	554057	46171	554057	1015772	600228	2770285
O/M ROAD	0	. 0	41250	41250	41250	123750
* SUM	1120637	380511	1263987	1588028	1284837	5638000
1-4 IRRIG. FACILITY	1.0		٠			0
FARM POND	65170		65170	65170	97755	325850
BOOSTER PUMP	303500		303500	303500	455250	1517500
PUMP STATION	12000	6000	12000	12000	18000	60000
GENER. & HUT	38000		38000	38000	57000	190000
LINE FOR DRIP	83420	41710	83420	83420	125130	417100
LINE FOR CE. PIVOT	75248	37624	75248	75248	112872	376240
DRIP SYSTEM	32414	16207	32414	32414	48621	162070
CENTRE PIVOT	56038	28019	56038	56038	84057	280190
WIND BREAK TREE	34636	17318	34636	34636	51954	173180
WIND BREAK FENCE	159434	79717	159434	159434	239151	797170
TRUNK ROAD	51422	25711	51422	51422	77133	257110
CULTIV. PASS	3046	1523	3046	3046	4569	15230
* SUM	914328	457164	914328	911328	1371492	4571640
1-5 CONNECTING ROAD	651250	1302500	1953750	65125	1953750	5926375
1-6 HOUSING	118750	59375	118750	118750	178125	593750
** TOTAL	2821215	2207675	4267065	2702481	4812579	16811015
1011111	6061570	200.0.0	150.000	7,00101		
2. EQUIPMENTS				:	•	
2-1 YEHICLE	14700	7350	14700	14700	22050	73500
2-2 MACHINERY SEEDING	20420	20420	20420	20420	20420	102100
MACHINERY HARVEST	146200	73100	146200	146200	219300	731000
** TOTAL	181320	100870	181320	181320	261770	906600
TT IVIND	101320	100010	101020	101060	401110	300000
3. TOTAL (1+2)	3002535	2308545	4448385	2883801	5074349	17717615
4. PROJECT FACILITY	14800	7400	14800	14800	22200	74000
5. ADMINISTRATION	11400	5700	11400	11400	17100	57000
6. CONSUL. SERV (3*0.08)	240200	185000	356000	230700	406000	1417900
	3268935	7 7 7		3140701	5519649	19266515
7. SUB TOTAL (3+4+5+6)			4830585			1926652
8. PHY. CONTING. (7*0.01	326894	250665	483059	314070	551965	1960096
9. GRAND TOTAL (7+8)	3595829	2757310	5313644	3454771	6071614	21193167
S. GRAND IVIAL (170)	999969	6191910	3313044	1115050	0011014	61100101

6.6.6 Submersible Pump Selection

In the arid region like the Nejd, any agricultural development plans are absolutely under the control of the technical and economical characteristics of available water resources, particularly groundwater.

Present groundwater investigation disclosed the target aquifer in the project site to be strongly pressured confined one and it will store almost stagnant fossil water. Since any extraction of water causes inevitagle decline of waterhead, it is necessary to envisage a limited availability of groundwater both in terms of volume and span for its agricultural use.

It would be too costly for any agricultural development scheme to make use of the phreatic groundwater which lies three hundred metres deep. In no occasion would it be used for the time being, though the volume of reserve is enormous.

So artesian groundwater, the water table of which is upto a hundred meters deep, would be a target resource for the agricultural development projects in general.

(1) Ordinary submersible pump selection diagram.

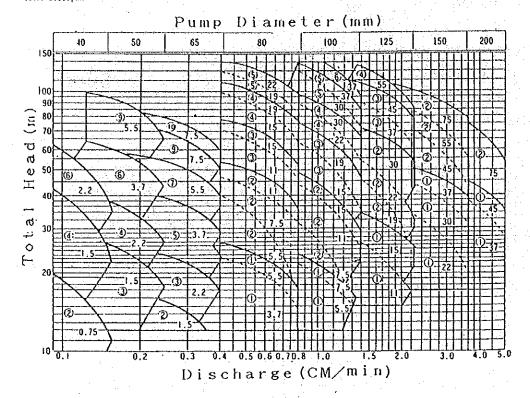
FIG.A-6.6.4 shows the selection of an ordinary submersible pump. Although the figure is prepared by a pump manufacturer, it is clear that the total head of a pump required for a discharge of about 3.6 cubic meters per minute which was the estimated value for the pilot farm, would be within sixty meters or so. If the pumping requirement is out of the diagram then the pumps should be manufactured by an order with new dimensions.

Generally, ordering a pump with more capacity than those prescribed in the diagram will cost higher and also will have bigger outer-diameter than the ordinary one.

FIG. Λ -6.6.5

Submersible Pump Selection Diagram

(60Hz 3600 rpm/



Legend ② or ③ shows Number of Propeller 11 or 22 shows Motor Capasity(Kw)

This diagram indicates the ordinary submergible pump selection The cost of pumps out of the diagram would increase higher than the ordinary because of order-made.

(2) Water cost of pumps clarified by head

TABLE A-6.6.15 summarizes roughly the unit water cost of the pumps clarified by head under the assumptions mentioned below. Although it is hard to see the actual rate of the water cost against the benefit because of the rough estimation, it is clear that the water cost increases rapidly with increase in pumping head.

TABLE A-6.6.15 Water Cost by Pump Head

Total Ilead (n)	(i) Discharge (cub.m/min)	© Discharge (cub. m/yr)	Pump O. D (nm)	Well I.D (mm)	(3) Pump Power (KW)	Ø Generat'g Power (KVA)	⑤ fuel Consump'n (1 /hr)	(D) Pump Cost (R. O.)	⑦ Genera'r Cost (R.O.)	(f) Water Cost (f. 0. /cub. m)
3.0	3, 6	1, 419, 120	200	300	28	38	11.5	20, 300	3, 300	0,012
5 ()	3.6	1, 419, 120	200	300	45	60	14.1	27,000	3,500	0.014
100	3.6	1, 419, 120	250	350	100	135	30.6	56, 300	7,700	0.027
200	3, 6	1, 419, 120	300	400	220	295	86.0	147,500	16, 950	0.067

Note:

②—① x 60min x 18hr x 365days

∅ = 0.746∅ = (Hell Depreciation

- + Pump Depreciation
- + Pump Hentainance
- * Generator Depreciation
- · Generator Haintenance
- · fuel for Generator
- Lubricating oil for Generator) 💠 ②

APPENDIX-7 PROJECT APPRAISAL

	PROJECT APPRAISAL		Pa
7.1	National Policy for (None)	Agriculture-Livestock and its Related Sectors	
	(Holle)		
7.2	Regional Policy of t	he Southarn Rogian	
	(None)	oodtheili kegioli	
	(none)		
7.3	The Neid Sub-Region	and Its Potential Role in the Southern Region	
	(None)	and its lotential Role in the Southern Region	
	(none)		
7.4	Significance of Pilo	1 Farm	
	(None)	v (AIII	
	(none)		
7.5	Appraisal of the Nei	d Agriculture Development Plan	
	on the	a norrow ture beveropment Fign	
7.5.1	Capital Investment S	chedule for the Agriculture Development Plan	
•	TABLE A-7.5.1	Capital Investment Schedule	
	TABLE A-7.5.2	Water Supply, Road and Farm-Wise Investment; Depreciation.	7 -
		Haintenance and Fuel Costs Replacement Capital	7 –
	PIG. A-7.5.1	Reference Chart for Repayment Schedule of Each Sub-Unit	_
		mosocomo quart to mobalment ochedote of Each 200-0111f	7
7.5.2	Project Appraisal	•	
(1)		onsidering the Unit Pirce of Rhodes Grass as R.O.100/ton	
	TABLE A-7.5.3(1)	INVESTMENT, Replacement & O/M Cost Residue Value	7_
	TABLE A-7.5.3(1) TABLE A-7.5.3(2)	Investment, Replacement & O/N Cost Residue Value	
·	TABLE A-7.5.3(2)	Income. Production Cost and FIRR	7
	· ·	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow.	7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm	7 7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow, P/L Statement & B/S of The 50ha Farm P/L Statement	7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow, P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet	7 7 7 7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow, P/L Statement & B/S of The 50ha Farm P/L Statement	7 7 7 7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid by the Government	7 7 7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5 Project Appraisal Con	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid	7 7 7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5 Project Appraisal Cor TABLE A-7.5.6(1)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid by the Government asidering the Unit Price of Rhodes Grass as R.O.70/ton Investment, Replacement & O/M Cost Residue Value	7 7 7 7 7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5 Project Appraisal Cor TABLE A-7.5.6(1) TABLE A-7.5.6(2)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid by the Government asidering the Unit Price of Rhodes Grass as R.0.70/ton	7 7 7 7 7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5 Project Appraisal Cor TABLE A-7.5.6(1)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid by the Government asidering the Unit Price of Rhodes Grass as R.O.70/ton Investment, Replacement & O/M Cost Residue Value	7 7 7 7 7 7 7 7 -
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5 Project Appraisal Cor TABLE A-7.5.6(1) TABLE A-7.5.6(2)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid by the Government asidering the Unit Price of Rhodes Grass as R.O.70/ton Investment, Replacement & O/M Cost Residue Value Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm	7
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5 Project Appraisal Cor TABLE A-7.5.6(1) TABLE A-7.5.6(2)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid by the Government Investment, Replacement & O/M Cost Residue Value Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement	7 7 7 7 7 7 7 7 -
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5 Project Appraisal Con TABLE A-7.5.6(1) TABLE A-7.5.6(2) TABLE A-7.5.7(1)	Income. Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid by the Government Investment. Replacement & O/M Cost Residue Value Income. Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm	7 7 7 7 7 7 7 7 -
	TABLE A-7.5.3(2) TABLE A-7.5.4(1) TABLE A-7.5.4(2) TABLE A-7.5.4(3) TABLE A-7.5.5 Project Appraisal Contable A-7.5.6(1) TABLE A-7.5.6(2) TABLE A-7.5.7(1) TABLE A-7.5.7(2)	Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement Balance Sheet Cost and Subsidy per 50ha Sub-Unit to be Paid by the Government Investment, Replacement & O/M Cost Residue Value Income, Production Cost and FIRR Debt Service Schedule with Cash Flow. P/L Statement & B/S of The 50ha Farm P/L Statement	7 7 7 7 7 7 7 7 -

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TABLE	A-7	F	- 1

		A B C	·	ı F	e I		H 1	1	 	× I		М	м	101
-	2-	TABLE A-7.5.) Capital Investment	Schedule									UNIT:RO (JA!		j
	<u>2</u> 3		1ST YEAR NYOHAH-1	A A XUAG	3FO YEAR NAGPAH-2	DHUXA-2	STHYEAR MAGRAH-3	BAUKA-3	71HYEAR NAGHAH-4	BIH YEAR DAUKA- 4	9TH YEAR NACHAH-5	DALY:A-5	TOTAL	UFE. LIFE
		CITIL PREPARATORY WORK P WORK WATER PROUCT WELL	7,500	7,513	7,500	7,500	7,510	7,500	7,500	7,500	7,500	7,500	75,600	d I
	5	SUPPLY MONITH WELL	112,870 101,583		112,870 101,583	149,100 134,190	112,870	149,100 134,190	112,670 101,583	149,100 134,150	112,870	149,100 134,190	1,309,850 1,178,651	
		SLON PUMP	27,425	134,179 ()	27,425	104,130	27,425	0	27,425	104,1.0	27,425	104)(120	137,125	51 101
1-5	-	Puite house	5,250	Ů Ů	6,250	Ŋ	6,250	0	6,250	0	6,250	0	31,258	ស 30
	Ō	GENERATOR GEN HOUSE	9,875 7,500		9,875 7,500	0	9,875 7,500	0 0	9,875 7,500) 0	9,875 7,500	0 n	49,375 37,590	
12		MPELINE	507,686	46,171	507,686	507,886	507,836	507,866	507,886	507,866	507,886	507,986	4,617,145	30
+	2	8040 07/11/RDA0	773,389		773,389	791,176	773,339	791,176	773,389	791,176	773,389 D	791,176	7,361,110	
1	14	CONNECT ROAD	10,000		41,25D D	0	41,250 0	41,250 0	41,250 D	41,250 0	0	41,250 0	247,500 110,000	
- 1	5	SIM	10,000	100,000	41,250	Ŋ	41,250	41,250	41,250	41,250	D	41,250	357,500] [
	7	WATER+ROAD: TOTAL LAND RECLAINATION	783,389 625		814,639 625	791,176 625	814,639 625	832,426 625	814,639 625	832,426 625	773,389 625	632,426 625	7,718,610 6,250	
Ī	B	IRAKA - FARM PORO	32,585		32,585	32,565	32,595	32,585	32,595	32,565	32,585	32,585	325,850	
13	7	TION BOOST, PUMP	151,750	151,750	151,750	151,750	151,750	151,750	151,750	151,750	151,750	151,750		ם נס
2	il	PUMP STATION Generator	გ,ნმნ 11,500	6,000 11,500	6,000 11,500	6,000 11,500	6,000 11,500	6,000 11,500	6,000 11,500	6,000 11,500	6,000 11,500	6,000 11,500	60,000 115,000	
3	श्री	GENHOUSE	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	75,000	1 30
2	긝	LINE FOR LAIP LINE FOR C.P.	41,710		41,710	41,710	41,710	41,710	4),710 37,624	41,710 37,624	41,710 37,624	41,710 37,624	417,101 376,241	
2	5	DRIPSYSTEM	37,624 15,207	16,207	57,624 16,207	37,624 16,207	37,624 16,207	37,624 16,207	16,207	16,207	16,207	16,207	162,070	
13	듺	CENTRE PIYOT	29,019	28,019	28,019	28,019	28,019	28,019	28,019	28,019	28,019	28,019	280,190	ti ici
12	i -l	WINDBK-TREE WINDBK-FENCE	17,318 79,717		17,318 79,717	17,318 79,717	17,318 79,717	17,318 79,717	17,318 79,717	17,318 79,717	17,318 79,717	17,318 79,717	175,180 797,170	
[2]	9	TRUNK POAD	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	257,110	G 3C
3	뭐	CULTIY PASS SIR1	1,523		1,523	1,523	1,523	1,523	1,523	1,523 457,164	1,523 457,164	1,528 457,164	15,250	
13	뉡	HOUSING SUTT	457,164 59,375	457,164 59,375	457,164 59,375	457,164 59,575	457,164 59,375	457,164 59,375	457,164 59,375	437,104 59,375	59,375	59,375		
		TOTAL AND A SECOND OF THE SECOND	1,308,053	954,125	1,339,303	1,315,840	1,339,303	1,357,090	1,339,303	1,357,050	1,298,053	1,357,090	12,365,250	<u> </u>
3		ECUIP- VEHICLE FEMTHACHIN- STABILIZER	7,350 20,420		7,350 0	7,850 6	7,350 8	7,350 20,420	7,350 8	7,350 0	7,350 0	7,350 0	73,501 40,640	
5 3	å	ERY HERVESTER	73,100		73,100	73,100	75,100	73,100	73,100	75,100	73,100	73,100	731,630	U 5
3		TOTAL	100,870	80,450	E0,450	80,450	£0,450	100,870	80,450	8ú, 4 50	80,450	80,450	845,340	9
3	9	L AEC+IRRIG+KOUSE+FOP TO TAL: T	518,034 1,408,923		597,614 1,419,753	517.614 1 396.250	597,614 1,419,753	618,034 1,457,950	597,614 1,419,753	597,614 1,437,540	597,614 1,378,503	597,614 1.437,540	6,016,981 13,810,590	
14	0	A: PROJECT FACILITY	7,400	7,400	7,400	7.413	7,400	7,400	7,400	7,400	7,400	7,400	74,031	u
		B: Administration C: Consultant Service	5,700 113,000	5,700 85,000	5,700 114,000	5,700 112,000	5,700 114,000	5,700 117,000	5,700 114,000	5,700 115,000	5,700 110,000	5,700 115,000		
4	3	D: PHYSICAL CONTINGENCY	155,502	830,000 113,068	154,685	152,139	154,685	158,806	154,685	156,564	150,160	156,564		
4	4	GRANO TOTAL	1,688,525	1,243,743	1,701,538	1,673,529	1,701,538	1,745,866	1,701,536	1,728,204	1,651,763		16,555,451	9
4	-	TABLE A-7.5.2 Water Supply Road	and Farm-Wi	ise Investment; ZMD YEAR	Depreciation 3FO YEAR	n,Maintenance 4TH YEAR	STHYEAR	Sts Keplacem	THYEAR	BTH YEAR	9747642	. Mac / Pot Tiku 1 oth Year	232 krb/f3	7
4	7		MAGHAH-1	DAUKA- I	MACHAH-2	DAUKA-2	жикн-5	いれいがオーゴ	PAGHAH-4	0.408.4 - 4	MAGHAH-S	DALDA-S	TOTAL] [
		A+B+C+D+P.6 *	287,102 243,876		269,285 981,509	284,739 953,388	269,205 381,509		269,285	292,164 1,002,495	250,760 931,767		2,817,659 9,301,144	
		(WATER+EC#O)(1+6)/(T-P)) * FARM:(T-P-WATER-BDAD)(1+6)/(T-P)			720,029	720,141	720,029		720,029	719,709	719,996		7,252,391	
5	1	TOTAL	1,668,529		1,701,538	1,673,529	1,701,538	1,746,865	1,701,538	1,722,284	1,651,763	1,722,204	16,553,451	<u> </u>
		WATER + RC40 DEPRECIATION COST	23,600	14,315	29,842	26,373	29,642	27,748	23,642	27,749	28,267	27,748	l	
		PHINTENANCE + FUEL COST	17,642		17,673	5 (3	17,673	549	17,673	549	17,632	549		
5	5]	TOTAL	46,242	14,461	47,315	26,8E1	47,315	28,297	47,315	26,297	45,69¥	28,297		
		FARM DEPRECIATION COST	57,423	55,339	53,339	53,339	53,339	\$7,425	53,339	53,339	53,339	53,339	ļ	
		PHINTENANCE + FUEL COST	35,005	32,234	32,234	32,234	32,234	35,005	32,234	32,234	32,234	32,234		
		TOTAL	92,426		65,573 132,698	85,573 112,454	85,573 132,636	92,428 120,725	\$5,573 132,688	85 573 113,870	85,573 131,472	85,573 113,870		-
		BRANO TOTAL WATER + MIXO CUMULATIVE	1 22 01 6	, 100,054	E BASTA			(40), 60					•	
6	2]	DEFRECIATION COST	23,600		72,557	38 330	128,572	156,320	185,552	213,710	241,977	269,725		ĺ
		PHAINTENANCE + FUEL COST	17,642 45,242		35,461 108,018	35,969 134,859	53,642 162,214	54,191 210,511	71,864 257,826	72,413 286,123	90,045 332,022	90,594 360,319		ĺ
6	2	TOTAL FLAM.CUMULATIYE												1
6	6	DEPRECIATION COST	57,423	107,086	156,749	206,412 123,394	256,075	309,322	355,809	401,796	447,783	493,770		
6	귀	MAINTENANCE + FUEL COST TOTAL	35,005 92,426		93,931 250,680	325,806	152,65? 408,932	185,091 494,913	211,783 567,592	238,475 640,271	265,167 712,950	291,859 785,629		Ì
6	9 (GRANO TOTAL: CUMULATIVE	133,670		753,678	464,705	591,146	705,424	825,418	926,394	1,044,972	1,145,948		
7	ūΤ	REPLACEMENT LESEFUL LIFE	37,300) 0	37,300	Ó	37,300	0	37,300	Ü	37,300	Ö	185,531	ā l
7	1 2	YATER+ROAD 10 YEARS 30 YEARS	745,089	429,451	777,339	731,176	777,339	832,426	777,339	832,426	736,089	632,426	7,532,111	ti i
	3	5 YEARS	103,727	89,307	69,307	89,307	69,317	109,727	69,307	89,307	89,307	89,307	933,911	9
7	<u> 4</u>	FARM 10 YEARS	193,619 309,063	916,619 309,063	198,619 309,063	198,619 309,063	198,619 309,063	198,619 309,065	913,619 530,635	198,619 309,063	199,619 309,063	198,619 309,063		
7		30 YEARS ASELTABLE A- 7.4.1	1	<u> </u>								PRE+LAND.RE	81,251	ci i
7	71	AL PROJECT FACILITY	D. PHYSICAL C									TOTAL	13,810,591	9
7	a	8: ADMINISTRATION	P:FREFARATE T:TOTAL	KY WURK										
17	41	C: CEMBULTANT SERVICE	4 . 3 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5					*** *** ******************************				·		

TABLE A-7.5.2

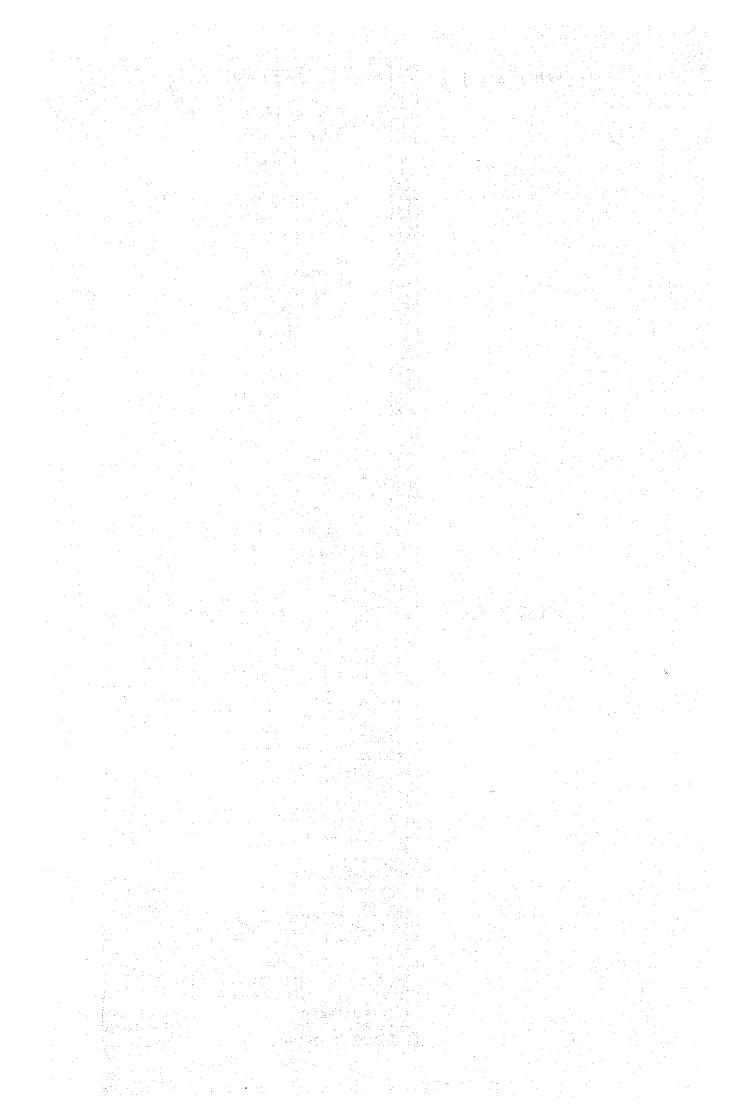


FIG. A-7.5.1 Reference Chart for Repayment Schedule of Each Sub-Unit

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Construction Period	Replacement	Repayment
Beginning End	8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	End of Grace Perio
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* 1 Corespond to the Columns of TABLE A-7.5.1

	Q R		TI	U	Г V Т		· · · · · · · · · · · · · · · · · · ·						· · · · · · · · · · · · · · · · · · ·	AE	AF T	AG 1	AH	AI I	AJ T	ar 1
2	NO. YEAR	λ-7,5,3(1) INVESTHI	Investment.	Replacemen	L & O/N Cos	t and Res	sidue Value	, Y	2 13417-R0 (## JAN 1939 PR	E)	<u></u>	TABLE	A-7.5.3(2)	Income,Produ	ction Cost an	d FIRR			
3	1 1007	W1R	FARIT	W+R	replacemen Tart: 5y	TARITETOY	HANATANAN W+R	FARM	TOTAL		GRAND TOTAL: C		ha # Upor	INCOME: B	PRO.COST; P	0-C-P (M)		PROD WEUL+ PIMP GEHRTR		B-C'-P-PW B)
5	2 1994	1	744,647 723,684				8,821	17,503	952,699 W+R	FARM C' 762,150	1,714,849		25	100,000	31,310	-1,6-46,158	-693,459	163,920	8,542	-855,941
6	3 1999	981,509	720,029				17,715	48,351	537,774	772,035	1,309,800		75 125	300,000 500,000	93,929 156,548	-1,103,738 -1,452,524	-565,964 -454,390	149,100 165,920	17,124 34,246	~ 732,183 - 652,559
8	4 1996 5 1997	, , , , , , , , , , , , , , , , , , , ,	720,141				36,625 35,715	77,814	1,009,134	797,843	1,805,977 1,816,521		175	700,000	219,167	-1,335,688	-346,584	149,100	34,248	-529,932
10	6 1993		744,331		109,727		44,806	136,740	1,026,315	856,769	1,363,084		225	000,000	281,786	-1,254,869	- 235,554 - 265,051	163,920 149,100	51,372 51,372	-453,845 -456,523
10	7 1999 6 2000	1	720,029		89,307		53,917 53,028	167,589 195,666	1,056,451	1,021,647	2,078,098 2,049,539		275 325	1,100,000 000,000,1	344,405 407,024	-1,156,562	-112,625	165,920	68,496	~\$44,441
12	9 2001		719,709 719,996		69,307 89,307		72,139	222,350	1,074,633	1,031,374	2,106,008		375	1,500,000	469,643		-1,017	149,100	68,496	-210,613
13	10 2002		719,709		89,307		\$1,229 \$0,320	249,050 275,742	1,012,996 1,092,814	1,058,353 1,084,758	2,071,349 2,177,573		425 475	1,700,000 1,900,000	\$32,262 \$94,881	- 5913,611 - 872,453	109,385 220,361	165,920 149,100	85,620 85,620	-140,155 -14,359
1 <u>4</u> 15	1 2003 2 2004		j	37,300	219,454		90,594	291,859	127,894	709,932	837,626		500	2,000,000	626,190	535,984	663,878	37,300	85,620	540,958
16	13 2005	1		נו 003,75	178,614		90,594 90,594	291,859 291,859	90,594	669,092 669,092	759,686 756,986		500 500	2,000,000 2,000,000	626,190 626,190	614,124 576,824	704,718 704,718	0 005,78	85,620 -85,620	619,093[531,793]
17	15 2006 15 2007	.)		0	178,614	193,614	50,594	291,859	127,894 90,594	669,092	759,686		500	2,000,000	626,190	614,124	704,718	ŋ	85 620	619,093
13	16 2008	1	1	37,300 0	178,614 219,454		90,594 90,594	291,653	177,894	290,092	796,986 800,526		500 500	2,000,000 2,000,000	626,190 626,190	576,824 573,264	704,716 663,676	37,300 0	65,620 65,620	591,793 578,253
20 21	17 2009 18 2010	1		37,300	178,614	198,619	90,594	291,859 291,859	90,594 127,894	709,932 669,092	796,986		500	2,000,000	626,190	576,824	704,716	37,300	85,620	531,793
22	19 2011			η 2005.73	178,614		90,594	291,859	90,594	669,092	759,686		500 500	2,000,000 2,000,000	626,190 626,190	614,124 576,824	704,718 704,718	37,300	85,620 85,620	619,093 531,793
2.3		: [0	178,614	199,619	90,594 90,594	291,859 291,859	127,894 50,594	669,092 669,092	796,986 759,686		500	2,000,000	626 190	614,124	704,718	. 0	ES,620	619,093
24 25	21 2013 22 2014	· 1		00E 7E n	219,454 178,614		\$0,594	291,859	127,894	709,932	857,826	5 . 5 5	500 500	2,000,000 2,000,000	626,190 626,190	535,784 614,124	663,678 704,718	37,300 0	85,620 85,620	540,953 619,0 9 3
26	23 2015	1		37,300	178,614	198,619	90,594 90,594	291,859 291,859	90,594 127,894	669,092 669,092	759,686 756,986		500	2,000,000	626,190	576,824	704,716	37,300	85,620	581,798
27	24 2016 25 2017	4	\	0 00% 7%	178,614 173,614		५०,५१५	291,859	90,594	669,092	759,686		500 500	2,000,000	626 190	614,124 576,824	704,716 704,716	0 37,300	85,620 85,620	619,093 531,793
29	26 2013	ı[ອາລະບ	219,454	198,619 198,619	90,594 90,594	291,859 291,859	127,894 90,594	669,092 709,932	796,986 800,526		500 500	2,000,000 2,000,000	626,190 626,190	573,284	663,678	ŋ	85,620	578,259
3 <u>n</u>	27 2019 28 2020			37,300	178,614	198,619	90,594	291,859	127,894	669,092	796,986	1.00	500	2,000,000	626,190	576,824	704,716	37,300 0	85,620 85,620	531,793 619,093
32	29 2021			37,300	178,614 178,614		90,594 90,594	291,659 291,859	90,594 127,694	669,092 669,092	759,686 796,986		500 500	2,000,000 2,000,000	626,190 626,190	614,124 576,824	704,716 704,716	37,300	85,620	581,793
33 34	30 2022	! -1,183,357 AYERAGE=	- 463,5951 725,231	-74 s Dņ	-179,614	-595,167	59,594	291,859	-1,167,365	-1,045,516		4.0	PR/HA	2,000,000	625,190 FIRE	3,536,689 <u>]</u> 1.12%	3525,91 <u>%,3</u> 3603,11	-74,600	85,620	2,408,305 6,94%
35	1												P. IC. LISS	4,000	HPY(10%)=	1.14.19	478,050			Q. 7 474
36 37	1	TABLE A-7.5. [1] CASH FLO	1(1) Debt W	Service Sc	chedule with	h Cash Flo	w, P/L Stat	ement & B	'S of the 50		UNIT: P.O. JAN	i aso pari	•	TABLE A- 7.5	.4(2) P/I	Statement				
38 39	NO YEAR	LCAH	SALE		HYEST-	YYATER	0/19 1			EHUNERATION	องกราชพ	CUMBUATION		+: SALE	-: WATER			-: DEPRECIA-		HET PROFIT
40	1 1993	725,231	100,000	TOTAL 825,231	725,231	3,418	14,593	11637 31,310	TION	R0720/HA 18,000	707AL 792,551	BALANCE 52,60	5	100,000	3,418	14,593	<u>5051</u> 31,310	TiOH O	18,000 18,000	32,600
41	2 1994 3 1995		500,000	200,000		5,836	29,186	62,619	0	36,000	134,641	93,03	\$	200,000	6,836	29,186	62,619 62,619	46,342 45,842	36,000 36,000	16,517 16,517
43	4 1996		200,000 200,000	200,000 200,000		6,836 6,836	29,186 29,186	62,619 62,619	Ü	36,000 36,000	134,641 134,641	163,39 228,75	5	200,000 200,000	6,836 6,836	29,186 29,186	62,619	45,642	36,000	16,517
44	5 1997 6 1993	I .	200,000 200,000	200,000	07 701	6,836	29,186	62,519	10 7 40	36,000 36,000	154,641	294,11 217,73		200,000 200,000	6,836 6,836	29,185 29,186	62,619 62,619	49,842 48,842	36,000 36,000	16,517 16,517
46	7 1999	T .	200,000	200,000 200,000	93,391	6,836 6,836	29,186 29,186	62,619 62,619	48,349 48,349	000,38 000,3E	276,380 162,969	234,74		200,000	6,836	29,186	62,619	46,842	36,000	16,517
47	8 2050	1	200,000	200,000		6,636		52,519	43,349	36,000				200,000 200,000			61,619 618,53	45,842 43,842	36,000 36,000	16,517 16,517
48	9 2001 10 2002		200,000 200,000 200,000	500°000 500°000		6,836 6,856	29,186 29,186	62,619 618,58	43,549 43,549	36,000 36,000	182,939	285,77	H	200,000	6,836	29,184	62,619	46,842	56,000	16,517
50 51	11 2003 12 2004		200,000 200,000	200,000 200,000	292,010	6,836 6,836	29,186	62,619 62,619	43,349 43,349	36,000 36,000	474,999 182,989	10,77 27,78	5	200,000 200,000	6,836 6,836	29,165 29,16 5	62,619 62,619	45,842 45,842	36,000 36,000	16,517 16,517
52	13 2005		200,000	200,000		6,836	29,186	62,613	43,349	36,000	182,989	44,60	ប	200,000	6,855	29,185	62,619	48,842	36,030	16,517
53 54	14 2006		200,000 200,000 200,000	200,000		6,836 6,836	29,186 29,186	62,619 62,619	48,349 48,349	36,000 36,000		61,61 78,82	D	200,000 200,000	6,836 6,836		62,619 62,619	48,842 48,842	36,000 36,000	16,517 16,517
55	15 2007 16 2003		200,000	200,000	93,391	4,836	23,186	62,619	48,349	36,000	276,380	2,44	u	200,000	6.656	29,185	62,615	45,842	36,600	16,517
56	17 2009		200,000	200,000		6,836 6,836	29,186 29,186	62,619 62,619	48,349 48,349	36,000 000,38		19,45 35,45	1	200,000 200,000	6,836 6,836	29,165 29,166	62,619 616,53	45,842 48,842	56,000 36,000	16,517 16,517
57 58	16 2010 19 2011		200,000	200,000 200,000		6,636	29,186	62,619	48,349	36,000	182,989	55,47	4	200,000	ò,856	29,166	62,619	45,842	36,000	16,517
59	20 2012	TABLE A- 7.5.4	200,000	200 DO ice Sheet		6,536	29,186	62,619	49,549	36,000	162,985	TABLE A 7		200,000 Cost and	5,836 Subsidy per	29,185 50ha Sub-Unit	£2,619	ৰ চ,842 by the Gover	36,000 nment	16,517
50 51	HO. YEAR	FIXED	JYTTAJUMU	CURRENT	ASSETS	LO4X		RETAIRED	CAPITAL				YEAR	INTEREST	TAJK WELL	A W/the suffice	可解的。因稱你	lyater supply	+ POHO XET + HON, WELL	7,594,277 15.525
62	1 1993		XEPRECIAT.	#55ff5 32,680	757,910	725,251	ū	52,660	TOTAL 757,916				1 1993	1.50% (0,678	15.53% 145,035	64,06% 598,762	1.45 % 13,538	·	P.LHE+DAY R	6405E
54	2 1994	676,368	43,842	49 197	774,427	725,231	0 D	49,197 65,714	774,427 790,944				2 1994 3 1995	10,878 10,878	1,405 1,416		131 131		CONNECTORAL ENC	1.45% 18.97%
65 66	3 1995 4 1996		97,684 146,527	65,714 82,231	790,944 807,461	725,231 725,231	D.	82,231	807,461				4 1996	10,978	1,436	5,813	131	· ·	TOTAL	100.00%
67	5 1957	529,862	195,369	98,748	823,576	725,231	D	98,748	823,976 840,495				5 (597 6 (598		1,405 1,406		151 131	4 MEIGHTED &	y useful life	
68 69	6 1993 7 1959		150,820 199,662	115,265 151,782	840,495 857,012	676,682 623,533	49,349 96,697	115,265	857,012				1 1999	10,978	1,476	5,303	131			
70	8 2000	476,726	248,504	148,299	873,529	580 184	145,046	148,299	873,529 890,046				E 2000 S 2001		1,406		131 131			
71	9 2001		297,347 346,169	164,016 191,333	890,045 905,553	- 551,535 - 463,437	193,395	164,816 181,333	906,565			1		10,878	5,708		533			
72 73	10 2002 11 2003	622,210	103,021	197,050	923,030	435,138	241,744 250,092	197,850	923,030 939,597			1		10,878	1,416		131 131			•
74 75	12 2004 13 2005	573,367 524,525	151,663 200,705	214,367 230,664	959,597 956,114	359,441	538,441 386,790	214,367 230,884	955 114			1	3 2005	10,878	1,406	5,803	131			
76	14 2006	475,685	249,548	247,401	972,631	290,032	435,138	247,401	972,631		* *	-		10,878 10,878	1,406 1,406		131 131			
77	15 2007	426,841	298,390 253,841	263,918 280,435	989,148 1,005,665	193,395	463,487 531,836	263,918 280,435	989,148 1,005,665				£ 2008	10,878	1 476	5,803	131			
78 79	16 2009 17 2009	422,547	302,683	296,952	1,022,182	145 046	SEU 184	296,952	1,022,182			!	7 2009 8 2010		! #ነ6 ነ #ነቴ		131 131			:
80	18 2010	373,705	351,525 400,368	313,469 329 986	1,038,700 1,055,217	43,849	628,533 676,882 725,251	315,469 329,986	1,055,217			Į.	9 2011	10,878	1,406	5,303	131			
	19 2011 20 2012		449,210	346,503	1,071,734	<u> </u>	725,251	346,503	1,071,734			L <u>2</u>	0 2012	10,878	1,406		131	L		
,																	7- 3	-		

		TABLE	3 1	T]	18		W							,	· · · · · · · · · · · · · · · · · · ·	v in symmetry and a second or in the control of the		All	Al	a.j	AK
	2 N	O YEAR	7.5.6(1) Inves	NT T	THE WATER COLUMN	M Cost and	-	alue Mhintenna	re euri T		AA AA RERI MAL		AC	TABL	AE F A- 7.5.6(2) INCOME: B	Income,Prod	nction Cost a	nd FIRR		MAINTERANCE!	
	4	1 1993 2 1994	W+R 943,078	FAR11 744,647	W+R	TARM: 5Y	FART TOY	W+R	FARM	TOTAL WYR	FARH C	GRANO TOTAL: C		ha ustr	70,000	31,310	60 -1,676,189		163,920		-895,941
	5 5	3 1995	520,059 981,509	723,684 720,025				17,715	17,503 48,351	752,699 537,774	762,150 772,035	1,309,809		75 125	21 D 000 35 D 000	93,925	-1,195,730	-655,964 -604,390	149,100 163,920	17,124 34,248	-822,183 -822,183
	В	4 1996 5 1997	953,368 981,509	720,141 720,029				26,625 35,715	77,814	1,008,134 989,103	797,843 827,418	1,816,521		175	490,000	156,548 219,16 f	-1,545,668	-556,584	149,100	34,246	~739,932
. :	9 10	6 1998 7 1999	981,509 981,509	744,331 720,029		109,727 705,88		44,806 53,917	136,740	1,026,315 1,056,451	856,769 1,021,647			225 275	630,000 770,000	281,736 344,405	-1,652,503	-508,554 -596,051	165,920 149,100	51,372 51,372	- 723,845 - 796,523
	11	8 2000 9 2001	1,002,495 737,767	719,709 719,996		69,307		63,028 72,139	195,666 222,358	1,044,537	1,005,002 1,031,374	2,049,539 2,106,009	i wilita Kabupatèn	325 575	000,019 000,020,1	407,024 469,643	-1,546,562 -1,525,650	-502,025 -451,017	163,920 149,100	68,496 68,496	~734,44! ~658,613
4.5	13	0 2002 1 2003	1,002,495	719,709		69,307 89,307		81,229 90,320	249.050 275.742	1,012,996 1,092,814	1,058,353 1,034,753	2 071,349	Maria Maria	425 475	1,190,000 1,330,000	532,262 594,831	-1,415,611	~400,615 ~349,639	163,920 149,100	85,620 85,620	-650,155 -534,359
	15	2 2004			37,300 0	219,454 178,614	198,619	90,594 90,594	291 059	127,894 90,594	709,932 669,092	837,826 759,686		500 500	1,400,000 1,400,000	626,190 626,190	-64,016 4,124	63,876 104,718	37,300	85,620 85,620	-59,042 19,093
	17	3 200s 4 2005			37,300	178,614 178,614	193,619 193,619	90,594 90,594	291,859	127,594 90,594	669,092	798,98€		500 500	1,400,000 1,400,000	626,190 626,190	-25,176 14,124	104,718 104,718	37,300 0	85,620 85,620	-18,202
	18	5 2007 6 2008			37,300 0	178,614 219,454	9 13,691 9 13,691	90,594 90,594	291,859	127,894	649,092 649,092	759,686 796,986		50D 50D	1,400,000 1,400,000	626,190 626,190	-23,176 -26,716	104,718 63,878	00E.5E	65,620 65,620	-18,202 -21,742
	20 21	7 2009 8 2010			37,300 0	178,614	193,619 193,619	90,594	291 359	90,594 127,694	709,932 669,092	800,526 756,986		50D 50D	1,400,000 1,400,000	625,190 625,190	-25,176 14,124	104,718 104,718	37,300	85,620 85,620	-18,200 19,0%
er.	22 1	9 2011			37,300	178,614 178,614	199,619	90,594 90,594	291,859	90,594 127,694	669,092 669,092	759,686 795,986		500	1,400,000	626,190	-23,176	104,718	37,300 0	85,620 85,620	-16,202 19,090
	24 25	21 2013			37,300	219,454 178,614	189,619	90,594 90,594	291,059	90,594 127,694	669,092 709,932	759,686 837,826		500 500	1,400,000 1,400,000	625,190 625,190	14,124	63,878	37,300	65,620	-59,042
	26 27	23 2015 24 2016			37,300	178,614	198,619	90,594 90,594	291,859	90,594 127,894	645,035 645,035	759,686 795,986		500 500	1,400,000 1,400,000	626,190 626,190	14,124 -23,176	104,718 104,718	37,300	85,620 85,620	19,093
	2B 29	5 2017 6 2018			37,300	179,614	189,618	90,594 90,594	291 359	90,594 127,894	669,092 669,092	759,686 796,986		500 500	1,400,000 1,400,000	525,190(625,190	14,124 -23,175	104,716 104,716	37,300	85,620 85,620	19,093
	30 3	7 2019 8 2020			37,300	219,454 178,614	198,619	90,594 90,594	291,859 291,859	90,594 127,894	709,932 669,092	800,526 796,986		500 500	1,400,000 1,400,000	626,190 626,190	-26,716 -23,176	63,878 104,718	37,30 <u>0</u>	85,620 85,620	-21,742 -18,202
	32 3	9 2021	1.4637 707		37,300	178,614 178,614	1941,619 1941,619	50,594 90,594	291 359	90,594 127,894	669,092 669,092	759,686 796,986		500 500	1,400,000 1,400,000	625,190 625,190	14,124	104,716 104,716	37,360	65,620 65,620	19,093
	34 35		-1,183,357 AVERASE®	-463,595 <u>1</u> 725,231	- 74,603	-178,614	-695,167	50,594	291,859	-1,167,365	-1,045,516	-2,212,879		<u>500</u> PR/144≈	1,400,000) 2,800	525,190 F183=	2,596,689 <u>]</u> -6.66%	1,819,326 -1.86%	-74,600	85,620	1,808,806 -5,79%
	36 37		TABLE A-7.5.7	(1) Debt Se	rvice Sche	dule with C	ash Flow, P	/L States	nent & B/S	of the 50ha	Farm					_ MPY(10 X) × =		-3,049,166			
•	38 8	O. YEAR	(1) CASH FLD LOAN			INTEST-	WATER	0/H		AHORITZA- R			CUMULATIVE) [+: SPLE	7(2) P/L Stat		-:PHODECTION -			MET
	39 40	1 1993	725,231	70,000	795,231	725,231	3,418	14,593	51,310	O ROLT	800/HA 0	YOTAL 774,551	84LAMCS 20,630		000,017	3,418	14,593	1201 31,310	TICH	THE	PROFIT 20,680
	41 42 43	2 1994 3 1995		140,000 140,000	148,000 140,000		6,836 6,836	29,186 29,186	62,619 62,619	0	Q Q	98,641 98,641	62,039 103,398	4]	140,000 140,000	6,836 6,836	29,186 29,186	62,619 62,619	48,342 48,342	. G	-7,483 -7,483
	44	4 1996 5 1997		140,000	140,000 140,000		5,836 6,836	29,186	62,619	Ü Ü	0 0	98,641 98,641	144,757 185,116	1	140,000 140,000	6,836 6,836	29,186 29,186	62,619 62,619	45,842 48,842	O O	-7,455 -7,485
	45 46 47	6 1998 7 1999		1 40,000 1 40,000	140,000 140,000	93,391	5,836 6,836	29,186 29,186	62,619 62,619	43,349 43,349	0	2 <i>4</i> 0,380 146,989	85,736 79,747		140,000 140,000	6,836 6,836	29,166 28,166	618,53 613,53	48,842 45,842	더	-7,483 -7,483
	47	8 2000 9 2001		140,000	140,000 140,000	Marian Para	6,836 6,836	29,186 29,186	62,619 62,619	43,349 43,549	0 Q	145,989 146,989	71,757 64,766		140,000 140,000	6,836 6,836	29,166 29,166	62,619 62,619	48,842 48,842	O O	-7,483 -7,483
	49 50	0 2002		140,000	140,000 140,000	292,010	6,856 6,856	29,186 29,186	62,619 62,619	43,349 48,349	Q 0	145,989 438,999	57,778	* }	140,000 140,000	6,836 6,836	29,166 29,166	62,619 62,619	48,842 46,842	Cq Cq	~7,483 ~7,483
	51 52	2 2004 3 2005		140,000	140,000 140,000		6,836 6,836	29,186 29,185	62,619 62,619	49,349 49,349	Q 0	146,989 146,989	-243,211 -255,200		140,000 140,000	6,836 6,836	29,165 29,166	62,619 62,619	45,842 46,842	[4]	-7,483 -7,483
	53 54	4 2006 5 2007		1 40,000 1 40,000	140,000 140,000		5,836 6,836	29,186 29,186	62,619 62,619	43,349 48,349	0	145,989 145,989	-262,190	{	140,000 140,000	6,836 6,836	29,166 29,166	62,619 62,619	46,842 48,842	ci Ci	-7,485 -7,483
	55 !	6 2008 7 2009		(41,000 (40,000	140,000 140,000	93,391	6,836 6,836	29,186 29,186	62,619 62,619	43,349 43,549	· 0	240,380 145,989		i	140,000 140,000	6,856	29,166 29,166	62,619 62,619	48,842 48,842	C) Di	-7,483 -7,483
	56 57 58	B 2010 9 2011		140,000 140,000	140,000 140,000		6,836 6,836	29,186 29,186	62,619 62,619	43,349 48,349	9	145,989 146,989	-383,539	{	140,000 140,000	6,836 6,836	29,166 29,166	62,619 62,619	48,842 48,842	D O	-7,483 -7,483
		0 2012	BLE A-7.5.7(140,000	140,000		6,836	29,186	62,619	48,349	0	145,989	-397,51E TABLE A-7.		140,000	6,836	29,166 ha Sub-Unit t	62,619	48,842	nent C	-7,483
		O YEAR	FIXED (UMIRATIYE CEPSELIAT.	KSSETS	ASSETS TOTAL	KACC	CAPITAL	PETAINED EARNINGS	CAPITAL TOTAL			113)	YEAR	18169:651 1.50%	15.52%	P.LINE+0/MR. 1 64.06%	1.45%	yater supply	* 73 M. GASS + J. J. J. H. H. T.	7,594,277 15.52%
	63 64	1 1993 2 1994	725,231 676,388	0 43,642	20,681 13,197	745,910 738,427	725,231 725,231	ប 0	20,660	745,910 738,427			1	1993	878,01 878,01	145,035 1,406	598,762 5,803	13,538 131		P.LINE+TUTH R CHARG SOMBO	64.06% 1.45%
· . · .	65 66 67	3 1995 4 1996	627,546 578,704	97,684 145,527	5,714 -1,769	730 +44 723,461	725,231 725,231	0	5,714 -1,769	730,944 723,461			. 4	1995	10,878 10,878	1,476 1,476	5,803 5,803	131 131		PRO WELL ETC TOTAL	18,97 % 100,00%
	67	5 1997	529,862	195,369 150,820	-9,252 -16,735	715,976 703,495	725,231 676,882	0 48,349	-9,252 -16,735	715,976 708,495			. 6	1597	876(0) 876(0)	1,436 1,436	5,803 5,803	131 ¹		Y USEFUL LIFE	
	68 69	6 1998 7 1999	574,411 525,568	159,662	-24218 -31,701	701,012 693,529	628,533 560,184	96,697	-24218 -31,701	701,012 693,529		٠.	<u>.</u> E	1939 2000	10,378	1,436 1,436	5,803 5,803	131 131			
	<u>70</u> 71	8 2000 9 2001	476,726 427,884	2#9,504 257,347	-39,184	686,046	551,836 483,487	153,395	-39 184 -45 567	686,046 673,563		-	9	2001 2002	10,878	1,436 5,708	5,863 23,853	131 533			
	72 1 73 1	0 2002 1 2003	379,042 622,210	345,189 103,021	-45,667 -54,159	678,563 671,030	435,138	290,092	-54 150 -61 633	671,080 663,597			11	2003 2004	10.878 10.878	1,476 1,476	5,803 5,803	131 131			
	73 74 75	2 200 4 3 2005	573,367 524,525	151,863 200,705	-61,633 -69,116	663,597 656,114	365,790 339,441	.366,790	-69 1 16	656,114 649,631			13	2005 2006	10,978	1,436 1,436	5,803 5,803	131			
	76 I	4 2006 5 2007	475,583 426,841	244,548 293,390	-76,599 -84,082	649,631 641,145	290,092 241,744	483,487	-84 082	641,148			15	2007	10,978	1,436	5,803	131			
	78 79	6 2008 7 2009	471,390 422,547	253,841 302,683	-91,565 -99,043	633,665 626,182	193 395 145 046	580,184	-99 043	633,665			17	2009	10,878 10,978 10,378	1,406 1,406	5,803 5,803	131 131			
•		E 2010	373,705 324,863	351,525 400,368	-106,531 -114,014	619,700 611,217	95.697	623,533	-106,531 -114,014 -121,497	618,700 611,217	•		19		10 378	1,406 1,406	5,803 5,803 5,803	131 [3]			
	82 2		276,021	443,210	-121,497	603,734	0	725,251	-121,4971	603,734			<u></u>	2012	10,578	1,405	5,903	1 <u>51</u> 7- 4			
		All Property	200						-												

Reference Program for the Table between A-7.5.1 ~7.5.8

```
(1) TABLE A-7.5.3
1) INVESTMENT
$4. $13=
            D49:M49
$33≔
             (~E72~F72*2~G72*3~H72*4~L72*5~J72*6~K72*7~L72*8~M72*9)/30
            D50:M50
T4:T13=
T33=
            .(-E75-F75*2-G75*3-H75*4-I75*5-J75*6-K75*7-L75*8-M75*9)/30
2) REPLACEMENT
U14:U23=
            D71:M71
                         (U24:U32=REPEATING)
            (M71-(E71+F71*2+G71*3+H71*4+I71*5+J71*6+K71*7+L71*8))/10
U33=
Y9:Y13=
            D73:H73
                         Y14:Y18= D73*2:H73*2(Y19:Y32=REPEATING)
Y33=
             ((H73+M73)-(E73+J73)-(F73+K73)*2-(G73+L73)*3)/5
W14=
            D74 -
                        (W15: W32=REPEATING)
W33 =
            (M74-E74-F74*2-G74*3-H74*4-174*5-J74*6-K74*7-L74*8)/10
3) MAINTENANCE + FUEL
            D63/2
X4=
                         X5=
                                    E63-E54/2 ... X12=
                                                              M63-M54/2
X13=
            M63
                         X14. X33=
                                    M63
            D67/2
Y4=
                         Y4≈
                                    E67-E58/2 ... Y12=
                                                              M67 - M58/2
Y13=
            M67
                         Y14:Y33
                                    M67
(2) TABLE A -7.5.3
 1) INCOME:B
AE4=
            AE34*AD4
                         AE33=
                                      AE34*AD33
 2) PRODUCTION COST:P
            ((174+233+87.5+27.9+12.5)/5+(1260+800+1209.6+1312)/4)*AD4
            Above figures are extracted from crop budget given in A-6.6.9
            ((174+233+87.5+27.9+12.5)/5+(1260+800+1209.6+1312)/4)*AD33
AF33=
(3) TABLE \Lambda-7.5.4
 1) CASH FLOW
S40=T34=Y40
                         T40=R04, 000*50/2
                                                 T41=R04, 000*50
            M64/10*AK65
                                     W40=W41/2 AK65=1-SUM(AK62:AK64)
W41=
X41=
            Y33/10
                         X40 = X41/2
Y41=
            AF14/10
                         Y40=Y41/2
            $40/15
Z45=.
            R0670/ha*50ha
                                     AA40=AA41/2
AA41=
2) P/L STATEMENT
A141=
            (N73/5+N74/10+N75/30)/10
3) BALANCE SHEET
S64+T64=S82+T82=S63
                         U82=Y82=AK59
U63=Y63=AK40 .....
W63+X63=W82+X82=S40
TABLE A-7.5.5
 1) INTEREST
AE63=
            S40*AE62
2) MONITORING WELL
            N12+N15-(N7+N9)*2/3
AK61=
                                     AF62=AK62=N6/AK61
            N49*AF62/10+AF64/2
AF63=
AF64=
            M63/10*AF62
             (M63+N71)/10*AF62+AF71
AF72=
 3) PIPELINES+MAINTENANCE ROADS
                                     AG62=AK63= (N11+N13)/AK61
AG63=
            N49*AG62/10+AG64/2
            M63/10*AG62
AG64=
             (M63+N71)/10*AG62+AG71
AG72=
 4) CONNECTING ROAD
                                     AH62=AK64= N14/AK61
            H49*AH62/10+AH64/2
M63=
            M63/10*AH62
AH64=
            (M63+N71)/10*AH62+AH71
AH72=
```

APPENDIX-8 BIBLIOGRAPHY

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