Supporting Report for Chapter 1 "Rehabilitation and Extension of Ma'an Wastewater Treatment Plant and Treated Wastewater Reuse of Five Existing Treatment Plant"

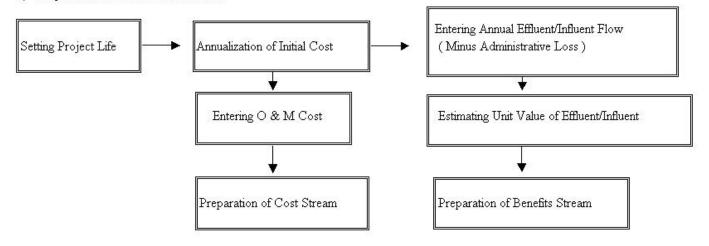
	page
Annex to 1.2 Existing System	SB1-1
Annex to 1.5.2.2 Preliminary Design of Treatment Plant	- SB1-4
Annex to 1.12.3.1 Operation and Maintenance Cost for Sewage System and Treatment Plant (Ma'an)	SB1-9
Annex to 1.12.3.2 Operation and Maintenance Cost for Reuse System	SB1-13
Annex to 1.13.2 Economic and Financial Analysis	· SB1-17
Annex to 1.13.3 Financial Statements	SB1-27
Annex to 1.15 Impacts of Wastewater Reuse on the Social and Natural Environment	SB1-28

ANNEX to 1.13.2 Economic and Financial Analysis

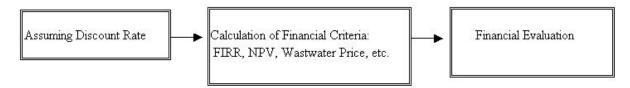
Economic and Financial Analysis

1. Financial Analysis

1) Preparation of Cost Benefits Streams



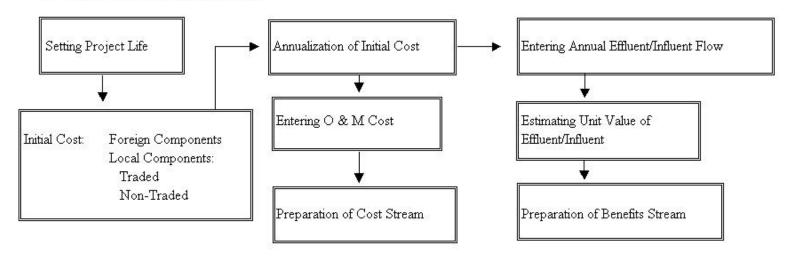
2) Calculation of Financial Criteria and Financial Evaluation



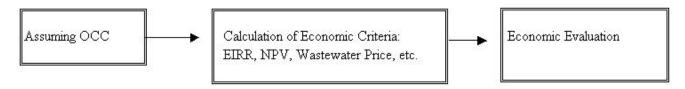
Methodology for Economic and Financial Analysis of Wastewater Reuse/Treatment Projects

2. Economic Analysis

1) Preparation of Cost Benefits Streams



2) Calculation of Economic Criteria and Economic Evaluation



Methodology for Economic and Financial Analysis of Wastewater Reuse/Treatment Projects

len	Allecators		2003	2004	2008	2008	2017	2011	3208.9	2019	2001(1)	2012	2012	2014	281.5	2816	3317	1018	2315	2820
Water Produced				T#2,268	727,884	T54,434	TIU,952	810,474	\$40,03 E	870,677	170,677	170,077	870,677	876,677	878,677	878,677	878,677	878,677	878,677	878,677
Industrial Water	1.00		0.0	0.0	0.0	0.9	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	8.0	1.0
Physical Larger (%)			8.08	0.08	1.01	3.13	1.11	3.11	0.01	0.80	0.00	0.90	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Physical Laures			0.6	0.0	0.8	0.8	0.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	E.O.	0.0
Administrative/Managerial Lourier (%)			1.14	0.12	1.11	1.03	111	1.17	0.81	0.85	0.05	0.95	0.05	0.85	0.05	0.05	0.05	0.05	0.05	0.05
Alkniestrative/Managerial Loures			0.0	0.0	0.8	0.8	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	8.0	1.0	1.0	8.0	1.0	1.0
Quantity Delirened			0.6	0.8	0.8	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	8.0	0.0	1.0	8.0	8.0	8.0
Quantity Where Bills are Collected	1.00		0.6	702,268	727.884	754,434	781.952	811,474	844,036	879,677	878,677	87 IL 1977	878.677	878,677	870,877	870.67T	870,677	870,677	870,677	870,677
Irrieston Water Physical Larger (%)	1.01		8.08	1.00	1.00	1.01	111	0.00	0.81	0.00	0.80	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00
Plotoical Lacore				1.0	4.00			-		. 0	0.	0	0	.0	0	0	. 0	.0	0	
Administrative/Managerral Lourier (%)			E 14	8.12	1.11	10	111	1.17	0.01	0.85	0.85	0.95	0.85	0.85	0.05	0.05	0.05	0.05	0.05	0.05
Adenicistrative/Managerial Losses			1	85,355	T1,788	67.089	63,556	36,733	50,402	43,334	43,534	43,534	43,534	43,534	43,534	43,534	40,539	43,534	43,534	49,594
Quantity Delivered			1	702,268	727,884	734,434	781,952	818,424	848,031	878,677	879,677	871,477	871.877	878,877	870,677	170,47T	E70,87T	170,677	870, 877	270,977
Quantity Where 34th are Collected			- 1	617,013	655,094	686,535	719,388	750,741	T88,634	827,143	817,143	837,143	837,143	827,143	827,343	127,143	127,143	127,143	127,143	£2T,143
Financial Analysis (JD at 2001 Prices)	40 56	55K EE	599577	047340	50/9/	25.00	71.12.F			1898	2500		25/20	4885	35000		+100	8599	2005	:::(P)(P)
bin	Percent.	Accept	2003	2004	2005	2006	2017	2081	2003	2013	2011	2012	2013	2814	2815	2816	2017	2855	2819	2120
Costs																				
Local Components	50%	287,497	267,497	0	0	0	U	0	0	0	0	D	0			1	1			1
Pireigs Compenents	44%	165,931	165,931	0	0	0	0	0	0	0	0	0	0	0.0	3.	35		- 2	- 7	8
Duby & Times	0%		373.438	0	0	0.2	0		0	0		0	0					- 1	1	
Tital Capital Costs		313,428	373,438	373,438	373,438	373,438	373,428	373,428	172,428	373,428	373,428	173,428	173,428	373,426	373,428	373,428	373,428	373,428	373,431	375,418
Cusulater Costs Oil: M Costs			373,420	9,765	8,780	9,815	9,341	9,007	9,882	9,918	9,818	9,910	9,912	9,911	9,918	9,918	9,918	3,911	8,910	8,918
Tetal Ceon			313,438	1.765	1,710	9,815	9,841	9,867	9,892	9,918	9,918	9,918	9,918	9,918	9,918	9,918	9,911	5,918	5,913	8,918
Bernana			313,730	50.50	10000	(9900)	35841	3,301	2,000	5,410	2,719	2,719	3,510	25518	2,710	2,610	5,716	7,210	5,510	2,518.
Industrial Usage Oty (m²)			7.6	30	107	23	110	37	100	330	0	0.5	0	330	0	0	0.0	30	.01	0
Indumial Teriff (JD/ts²)			1.000	1.008	1.000	3.008	1000	1.000	3.000	1.000	1.000	1.000	1.880	T.830	1:000	1.800	1,000	1.900	1.900	1:100
Industrial Revenues (JD)			1	21127 (2.4)		4	1	1		0		0	0	0	0	0	. 0	0	0	0
Intgation Usage Qby (m ³)			1	617,013	655,006	686,515	718,386	753,341	188,634	827,143	817,143	827,143	827,143	827,143	827,143	127,143	\$37,143	837,143	127,143	#27,143
Impain Tariff (ID/m)			1 510	1.013	1.616	0,000	0.834	0.831	0.838	0.946	0.848	0.145	0.040	0.048	0.048	0.048	0.048	1.041	0.045	0.046
Irrigation Revenues (JD)			- 1	7.713	11.236	13,419	17,563	23,043	30,122	30,441	39,441	210,441	38,441	39,441	39,441	39,441	39,441	39,441	39,441	39,441
Total Revenues (ID)				7,713	10,238	33,449	17,563	23,083	38,122	39,441	39,441	29,441	19,441	39,441	39,441	39,441	39,441	39,441	39,441	39,441
Net Cash Flow (ID)			.973,436	-2,051	446	3,593	7,733	13,136	26,231	29,513	19,523	28,523	18,529	20,523	39,523	29,523	39,523	39,523	29,523	29,523
Discounting (DR=5%)			8.95230	0.99700	0.86384	0.52278	0.78383	0.74623	0.71081	U. 5T684	0.64461	0.61391	0.58465	D,558.94	0.53832	8.5080T	0.44002	1.45511	8.43830	0.41552
Tirtal Qty Whose Bills are Callected (nr)			1	617,013	655,094	684,535	719,384	151,341	T88,634	827,143	817,143	837_P0	827.343	817,145	827_143	127,143	127,145	137,143	\$21,143	\$2T,143
FIRE	4.1%																			
MPV (ID)	41,921		-355,646	-1,861	385	1,958	4,051	8,883	14,337	18,963	100,61	18,125	17,363	36,440	15,657	14,011	14,301	15,525	12,881	12,260
PV of Total Costs (ID)	451,211		355,646	8,890	1,457	1,015	7,731	7,363	7,031	6,713	6,393	6,000	5,390	5,523	5,360	5,809	4,771	4,548	4,327	4,121
PV of Total Bills Collected Qtp (ex ²) Unit Water Price (Rishn ²)	11,386,714			559,648	565,598	564,614	263,666	562,453	561,171	559,343	513,114	317,734	413,413	461,534	438,652	417,763	397,970	370,934	390,810	343,695
Economic Analysis (JD at 2001 Prices)	- 64																			
lten	Perient :	Accept	3003	2004	2005	2006	2017	2011	2009	.2018	2001.	3012	2013	304	2815	2016	2017	2918	2819	2130
Costs	2 011544	Jenne	100010731			2000	****	-	9041	-3001	4001	200			21500	- 6410			4415	
Local Companyors			189,216	137	110	337	137	137	137	1.30	137	137	137	137	133	137	137	132	137	137
Fireign Compensents			165,931	0	0	0	0.	0	0	- 0	.0	0	0	- 1	- 1	1	1		- 10	-
Duby & Trans			0	0	0	.0	0	. 0	. 0	0		0	0	1			1		1	11.5
Total Capital Costs			355,149	137	137	197	137	1,31	1.97	137	137	137	137	(37	137	137	137	137	137	127
Curudative Centr			335,149	385,296	385,422	385,559	385,695	195,632	355,963	156,105	356,241	256, 3TS	356,514	356,651	356,787	256,924	257,066	357,197	357,513	357,478
O.6 M Costs			0	9,795	3,780	9.815	9.341	9.86T	9,893	9,918	9,916	9.715	9,915	9,911	9,911	9,911	9,911	9,918	9,918	9,91#
Total Casts			315,149	8.311	9,527	9,552	9,978	10,803	10,829	10,955	1.0, 855	10,155	10,055	10,039	10,058	10,055	10,055	18,005	18,005	18,055
Density			100	100	11000	100	100		400	100	180	100	1/60	100	100	220		110	100	100
Industrial Usage Qty (m²)			200	0	0	0	0	0	0	1 740	0	0	0	2.74	2200	2.20			2210	2210
Unit Exceller of Industrial Water (IDin')			2.748	2.748	1.748	2,748	2.748	1,341	1341	2.340	1740	1,740	1740	1340	2.740	2740	2740	2740	2740	2740
Industrial Benefits (7D) Irrigation Unique Qty (m²)			9	781.267	727,894	754.434	791,852	810,474	840,836	870,877	270,817	870.877	\$70.0TZ	\$70,6T7	810,677	870,677	810,677	878,677	318,677	878.677
Uset Benefits of Impation Water (JD/or ²)			1110	1.129	1.129	0.029	0.853	0.853	0.853	0.853	0.853	0.853	0.053	0.053	0.053	0.053	0.053	1.053	1.053	1.053
Impain Briefis OD)				28,254	21,592	21,758	41,731	43,253	44,830	40,400	40,400	40,400	40,466	90,968	46,408	40,406	46,466	44,408	46,468	46,466
Total Resetts (JD)			0	18,354	28,882	11,758	41,731	43,253	44,130	45,465	46,466	46,466	46,466	46,464	46,466	46,466	46,466	46,466	46,466	46,466
Net Cash Flow (ID)			-355,148	10.351	11,066	11.816	31,753	33,251	34.882	36,411	36.411	16.411	36,411	16,411	36,411	36,411	36,411	36,411	36,411	36,411
Discounting (Dff=18%)			8.68908	0.83645	0.25131	0.85301	0.63063	0.36447	0.51316	0.46651	0.42410	0.38354	0.35849	0.31883	D.20866	0.26333	8.23939	1 21763	E 19704	8.17886
Tyrid Qty Delivered (m²)			-	702,268	727,884	754,434	781,951	\$10,474	844,036	878,677	810,677	871,477	8711.677	871,477	870,677	170.67T	\$70,67T	870,677	870,677	170,677
MIRE.	7.4%				270				1000	1150700	81373					7				-
NPV (2D)	-T5,60T		-322,863	8,556	1.314	1,044	39,738	11,769	17,859	16,986	15,442	74,838	12,762	11,642	10.54T	9,588	8.71T	T,924	T, 204	6,549
PV of Total Costs (ID)	489,127		312,863	1,113	7,438	0,717	0,395	5,846	5,146	4, 890	4,204	3,876	3,524	3,204	2,711	2,948	2,407	3,188	3,903	1,288
PV of Total Qty Delitrored (nc ³)	6,985,617		g.	583,387	548,870	535,288	485,531	457,491	431,971	486,177	389,352	325,684	305,167	277,425	252,204	229,276	200,433	189,465	173,259	154,588
Unit Water Price (Filmin)	-51																			

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Hydraulic Analysis (m²/yr)	Allocation		2001	2004	2008	2008	2017	2001	2089	2018	2001	2012	2012	2014	2815	INTO	3817	2018	2319	2920
Water Produced				T17,041	T97,64T	850,143	802,688	955,289	1,807,728	1,860,250	1,950,250	1,960,350	1,060,250	1,061,250	1,058,250	1,068,250	1,068,250	1,068,250	1,048,250	1,048,250
belotted Water	0.00		0.0	0.0	0.0	0.8	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	8.0	E.D.	1.0
Physical Laurer (%)	0,000		8.06	0.06	1.01	3.11	1.11	1.11	0.00	0.80	0.00	0.90	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Physical Laures			0.6	0.8	0.8	0.8	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	1.0	0.0
Administrative/Managerial Logues (%)			1.14	8.12	1.11	3.07	165	1.17	0.81	0.85	0.85	0.85	0.85	0.85	0.05	0.05	0.05	0.05	0.05	0.05
AAneustrative/Managerial Losses			0.0	0.8	0.1	0.1	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	8.0	1.0	1.0	0.0	6.0	10
Quantity Delivered			0.6	0.8	0.8	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	8.0	1.0	8.0	8.0	10
Quantity Where Edic are Collected			0.6	0.6	0.1	0.1	0.8	0.1	0.1	0.0	0.0	0.0	D.G	0.0	6.0	1.0	1.0	8.0	E.O.	10
motor Water	1.00		19	737.041	791,647	858,168	900,688	955,289	1.005.758	1.068.250	1.061.290	1.061.150	1.069.190	1.068.350	1.060.250	1.1(0.250	1.890.250	1.890,250	1.890.250	1,890,250
Physical Larger (%)			8.08	1.00	3.00	3.01	111	0.00	0.81	0.00	0.80	0.00	0.90	0.90	0.00	0.00	0.00	0.00	0.00	0.00
Physical Laures			- 1	1	1	-	1	1		. 0	in.	0	0	.0	0	0	0	0	0	n
Administrative/Managerral Lourer (%)			E 14	8.12	1.11	1.07	111	1.17	0.81	0.85	0.95	0.95	0.85	0.85	0.05	0.05	0.05	0.05	0.05	0.05
Adenicistrative/Managerial Losses			1	89.477	79,765	76,515	71,015	66,865	08,464	50,010	53,013	53,813	53,813	53,813	53,813	53,313	53,813	59,013	53,813	53,813
Country Delivered			1	757,041	797,647	936,148	900,688	955,289	1,000,721	1,068,250	1.041.250	1,008,150	1.008.190	1.085.250	1,080,250	1,190,250	1.890,250	1.893,250	1.480,250	1,860,250
Quantity Where Bills are Collected			- 1	647.564	717,883	713,663	838,473	205 344	947.268	1.007.208	1.007.238	1,007,138	1.097.138	3.007.238	1.097,738	1.197.235	1.117.238	1,887,238	1,117,235	1,807,238
Financial Analysis (JD at 2001 Prices)	.10 5.5	WY 55		011201	11-000			3000,0013	- ///	2000	2001-000	- Interest	100140	2001.00	Local Labor	1001100		- Carriero	Later Address	Table 1 and
bin	Percent	Account	2007	2004	2008	2006	2007	2081	2003	2018	2011	201.2	2013	2814	2815	2816	2017	2815	2819	2820
Costs	7.50		100000	100000	17770	0.0750	177.17	1000000	7.7.7.7	F-17.100	75771		77.00	30000		7.000	2000	100000	70.700	
Local Components	77%	173,383	173,583	0	0	.0	U	0	0	. 0	0	0	0.	1	1	1	1	1	1	1
Fireigs Compenents	33%	53,185	53,185	0	0	0	0	0	0	0	0	0	0	88	- 0	- 6		- 1		9
Duty & Turer	0%		- 1	n .	0	0	0	0	0	- 6	D	D	0	1.0	9	90		9	9	9
Tirtal Capital Costs		227,068	227,064	0.3	0	0	n	n	0	- 0	Ti Ti	0	0	1	T.	100	1	1	1	î
Canadate Casts		56.655	227,068	227,868	227,868	227,868	227,868	127,868	227,868	127,868	127,868	227,868	227,068	227,068	227,064	227,068	227,068	227,068	227,048	227,061
O & M Costs			0	4.136	4,335	4,126	4,336	4,326	4,126	4,126	4,126	4,326	4,325	4,324	4,326	4,326	4,326	4,326	4,315	4,326
Total Crow			227,168	4,336	4,335	4,336	4,326	4,326	4,326	4,326	4,326	4,326	4,336	4,326	4,324	4,324	4,324	4,326	4,316	4,316
Borness				1,000	198.87		- Section	- pares	1001	11000	Trees.	7,000	7,000	7,000	1,000		1,000	1.192.00	3,324.6	
Industrial Coage Cty (m²)			7.6	100	107	23	110	17	150	330	0	0.5	0	0.0	0.0	0	0.0	3.0	.0	0.0
Industrial Twiff (/ID/ex*)			1.000	1.000	1.000	3.009	1001	1,000	1.000	1.000	1.000	1.000	1.890	1.830	1:000	1.800	1.000	1.900	1.900	1:000
Industrial Revenues (JD)								1		0.00	0					0	0	D		0
Irrigation Usage Qty (m ²)			1	647,564	717.883	775,653	830,473	881,344	947,286	1,007,238	13017,298	1.007.138	1.007.138	1.087,138	1.097.338	1,897,238	1.897.238	1,897,238	1,117,238	1,807,238
Impates Tariff (ID/m)			1 510	8.813	1.616	0.830	0.834	0.831	0.838	0.946	0.942	0.945	0.048	0.040	0.048	0.048	0.048	0.040	1.041	0.040
Impates Revenues (JD)				8,005	11,217	15,110	26,275	27,110	36,135	48,029	48,029	48,129	48,829	48,829	48,829	48,829	48,829	48,829	48,829	48,829
Total Revenues (ID)				8,095	11,217	15,118	28,275	27,118	36,125	48,029	48,029	48.829	48.822	43.829	45,829	45,129	41,129	45,129	40,029	45,129
Ner Cash Flow (ID)			-227,064	3,768	6,304	16,794	15,949	22,784	31,869	43,783	43,793	43,783	43.783	43,783	43,703	43,703	43,703	45,703	43,703	43,703
Discriming (DR-5%)			1.55232	0.88703	0.86384	0.82278	0.76383	0.74622	0.71061	U. 97594	0.64481	0.61191	0.53465	D.554.94	0.53832	1.5050T	E 48102	1.42511	E 47650	141552
Total Oty Whose Bills are Callected (m)				647,564	717,882	717,653	836,473	381,344	947,266	1,007,238	1,017,238	1,007,138	1,007,135	1,047,138	1,087,138	1,897,238	1,817,238	1,897,238	LEST, 236	1,00T,238
FIRE	12.0%			011201	111-2006	********	0.56,711.3	0047244	247-249	100012030	13041,400	130617130	13061-830	100417830	1.001.2.30	1,000,1230	1.681.230	1,891,230	1.811.630	1301,230
MPW (JD)	213,031		-316,258	348	1,953	4,872	13,467	17,063	22.681	29,580	21,171	26,630	35.553	34.115	23,177	32,873	31,822	30,828	19,167	18,159
PV of Total Costs (ID)	278,634		216,255	3,994	1,737	3,559	3,388	1,228	1.074	2,928	2,799	2,656	2,539	2,499	2,294	2.185	2,881	1,882	1,887	1,798
PV of Total Bills Collected Oty (ar)	13,486,234		II.	507,300	621,134	536,486	658,687	663,286	672,284	601,730	618,274	618,156	500,511	541,161	534,160	185,725	494,490	461,427	429,454	410,525
Unit Water Price (File/m)	21			yes year	0.40,104	3000 7500	(major)	0000	00.4544	00007.00	2010,447	534,339	200,011	-30,844	200	100000	345,305	200,000	246,252	710,740
Economic Analysis (JD at 2001 Prices)																				
lten	Perient :	horse	2003	3004	2005	2006	2017	2011	. 2019	:2011	2001	3012	2813	3014	2015	2016	2017	2918	2919	2130
Costs	2 011544	3,617,42	****	800	2000	2000	400			3000	4001	200		1016	21/2/4			5710	4000	
Local Companyon			154,124	365	265	168	168	168	188	188	188	168	166	160	168	168	168	168	144	168
Fareign Compunents			53,186	0.	0.	- 0	0	0	0	.0	0.	0	0	- 1	1	1	1		1	1
Duby & Tages			g.	0	0	0	D	. 0	0	D	. 0	D	0	1	1	1.		1	1	- 1
Total Capital Costs			207,399	168	163	168	368	1.68	1.68	1.68	1.68	1.68	168	160	100	168	164	168	148	163
Caradates Carts			207.319	287.877	287,645	287.815	287,881	185,149	288,31T	186,485	288,653	208,821	205,939	209,157	309,325	209,493	209,661	208,329	208,997	218,165
O.6 M Costs			n-	4,336	4,736	4,726	4,326	4,326	4,326	4,326	4,326	4,326	4,326	+,324	4,326	4,326	4,324	4,326	4,339	4,308
Total Costs			207,189	4494	4.494	4,414	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,454
Denefit					457	100	4		4.1					113						
Industrial Usage Qty (m²)			0	0	0	0	0	0	. 0	0	0	0	0		1	10		91	1	1
Unit Benefits of Industrial Water (IDine)			2.748	2.748	1.748	2 748	3.748	3.348	1341	1 740	1 740	2.740	3.740	1340	2.740	2.740	2740	2740	2740	2740
Industrial Benefits (7D)			0	0	0	: 0	0	0	.0	0	.0	0	0	1	1	1		1	1	1
Irrigation Unage Qby (m ²)			0	227,841	787.64T	850,165	982,688	855,209	1.817.729	1.090,250	1.880,250	1,880,250	1.860.250	1,060,251	(,060,250	1,160,258	1,060,256	1,060,250	1,068,211	1,088,259
Unit Benefits of Impation Water (JD/or ²)			1110	1.119	1.619	0.819	0.864	0.864	0.964	0.894	0.864	0.164	0.064	0.064	0.064	0.064	0.064	1.064	0.004	8.064
Irrigation Descriptio(UD)				34.341	35,384	36,312	57,590	80,941	84,271	8T, 843	8T, 843	dT,643	dT,043	07,043	67,641	67,641	67,643	67,643	67,641	67,643
Total Resetts (ID)				14.141	15,314	36,312	57,590	80,841	84,392	87,940	67,643	6T, 642	67,643	67,643	67,641	67,643	67,643	67,643	67,643	67,641
Net Cosh Flow (ID)			-307,308	9,647	11.811	11.813	53,086	56,447	58,581	63,349	13.149	63,149	63.149	63,149	63,149	63.149	63,149	63,149	63,149	63,149
			1.83207	0.82363	0.77601	0.70548	0.64133	0.58383	0.53083	0.48184	0.43884	0.39131	0.36381	0.32510	0.29818	5.271.99	E 24726	8.23476	1.28435	E 18577
				737,041	797,647	858,168	900,688	955,269	1,000,718	1,068,250	1,0(8,250	1.0(3,150	1.068.250	1.041.230	1.060.250	1,890,250	1,890,250	1,890,250	1.890,250	1,890,250
Discounting (DE-19%)						COUNT - COUNT	3506,000 8	AAA 198 A	4,000,004	1000000000	1,000 (0.000)	1055479	1000,470	200000000	1,000,400	1,070,470	1.00 to 6.00	1,470,470	6-8 SA 6-55	1,45%,679
Discrending (DR=18%) Tittal Qty Delivered (m³)	10.00			1000																
Discounting (DE-19%) Total City Delivered (p ³) SIRIS	19.1%					1.372	34.053	33.014	70.684	38.472	77.66	15 147	13.867	20.785	10 803	12125	15.614	14.105	12.894	11.734
Disconning (D61–18%) Tind Cty Delivered (n°) SIRIS NPV (20)	551/383		-194,687	8,235	1309	1.307	34,052	33,918	31,694	30.427	37,661	15,147	22,861	21/212	18,893	17,175	15,614	14,195	12,904	11.73)
Discounting (DE-19%) Total City Delivered (p ³) SIRIS						1,307 2,170 589,759	34,052 2,852 570,810	33,918 2,820 556,810	31.684 2,381 534,119	30,427 2,165 510,869	37,661 1,969 464,427	35,347 1,790 422,306	12,861 1,027 383,834	28,782 1,419 148,931	18,893 1,345 117,218	17,175 1,223 309,073	15,614 1,111 262,157	14,195 1,018 238,334	12,904 918 216,658	11,731 835 196,963

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Hydraulic Analysis (n°/yr) less	Allocation		2003	2004	2008	2008	2017	2011	1,2089	2019	2001	2012	2013	2014	2815	2816	1 1	2317	2018	2319	2920
Water Produced				511,895	565,973	597,912	631,684	667,181	204,051	394,741	294,791	344,741	244,741	344,741	744,781			744,791	744,791	744,781	744,743
Industrial Water	0.00		0.0	0.0	0.0	0.8	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0	1.0	1.0	1.0	8.0	1.0
Physical Laurer (%)			8.06	0.08	0.00	3.03	1.11	3.11	0.00	0.80	0.00	0.90	0.80	0.00	0.00	0 (00	0.00	0.00	0.00	0.00
Physical Laures			0.6	0.0	0.8	0.8	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.0		1.0	1.0	0.0	1.0	91.0
Administrative Managerial Loss et (%)			1.14	0.12	1.11	0.00	1.65	1.17	0.81	0.85	0.85	0.85	0.85	0.85	0.05		05	0.05	0.05	0.05	0.08
Alkneistrative/Managerial Loares			0.0	0.0	0.0	0.8	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	8.0		1.0	1.0	8.0	6.0	11
Quantity Delireted			0.6	0.8	0.8	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	8.0		0.0	1.0	8.0	8.0	1.1
Quantity Where Edit are Collected			0.6	0.6	0.1	0.1	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0		1.0	1.0	8.0	E.O.	11
Imotor Water	1.06			501.895	565,973	597,912	631,654	667,388	104,951	744,341	744,741	344,341	344,341	344,341	344,341			744,741	744,741	344,741	344,74
Physical Larger (%)			8.08	8.08	9.08	3.41	3.01	0.00	0.88	0.80	0.80	0.00	0.10	0.10	0.00		.00	0.00	0.00	0.00	0.00
Physical Lacore					v. 100	0.00				0	0	. 0	0		0		0	0	0	0	0.00
Africatrative/Managerial Louisi (%)			1.14	E 12	54,597	1.0	111	1.17	0.11	0.45	0.95	0.95	0.85	0.85	0.05		.05	0.05	0.05	0.05	
Affairistative/Managerial Loures			- 2	60,938		53,612	58,533	46,731	41,297	37,237	37,297	37,137	37,337 344,341	37,337	37,237			37,231	37,237	37,237	37,230
Quantity Delivered			- 1	501,395 440,965	508,378	544,111	580,123	620,388	662,661	744,741 707,584	T44,741 T87,584	787,534	717.514	787,539	394,341 317,504			787,504	787,504	717,504	70T,50
Quantity Where Bills are Collected Flooretal Analysis (JD at 2001 Prince)	111 707	1112		440,900	309,378	244,111	261,144	0/8,789	001.061	10/244	187,384	TRICOPY.	ALCOH:	787,285	787,304	790	104	780,304	781,304	791,304	701,30
han	Percent.	Account	2007	2004	2005	2006	2067	2081	2011	2018	2011	2012	201.7	2814	2815	2816	-	2017	2315	2819	2820
Costs	77.000		Tallian	100000	119700	0.000	77.11	1000000	7.7.2		75777			300000		-			-	*****	
Local Companies	82%	131,834	131,324	0	0	0	0	0	0		0	0	0.	1	1	I.	1	1	1	1	1
Fireigs Compenents	2%	9,854	9,456	0	0	.0	.0	0	0	0	.0	0	0	2.0	00	ř.	100	1	- 1	30	j
Duty & Turns	0%	1		0.	0	0	.0	0	0	0	D	D	0		1		1			1	1
Total Capital Costs		141,688	141,3(00)	0	.0	0	0	0	0	0		0	0		T		1			T	
Cumulater Crots			141,680	141,630	341,610	141,630	141,630	141,680	141,680	141,680	141,680	341,680	141,680	141,688	141,688	8 141,	68	141,688	141,688	141,611	141,681
O & M Code			0	4,110	4,110	4,010	4,800	4,300	4,000	4,800	4,000	4,000	4,000	4,000	4,008	E 4,	300	4,000	4,008	4,011	4,001
Total Cape			141,480	4,810	4,690	4,610	4,800	4,800	4,900	4,800	4,900	4,800	4,000	4,000	4,008	6. 6.	006	4,008	4,000	4,011	4,011
Estudias																					
Industrial Usage Qty (m²)				30	100	2.3	1.0	1.5	100	0	0	0.5	0	. 0	.0		0	0	- 0	.0	
Industrial Twiff (JD/m²)			1.000	1.000	1.000	3.003	1.001	1,000	1.088	1,000	1.000	0.00	1.880	1.830	1:100	0 L	100	1.000	1,900	1.900	1,000
Industrial Revenues (ID)			1	1	1	1	1	1		0	0	0	.0	0	0		.0	0	. 0	. 0	55.00
Irrigation Usage Qty (ts*)			1	440,965	508,376	544,188	581,112	628,584	663,661	707,584	717,584	787,584	387,534	787,514	317,504			787,904	787,504	717,594	307,504
Irrigation Taroff (ID/m²)			1010	0.013	1.816	0.830	0.834	0.031	0.038	0.840	0.048	0.148	0.048	0.048	0.048		41	0.048	0.040	0.040	0.041
Irrigation Revenues (JD)				5,511	7,950	10,617	34,188	18,930	25,271	30,736	33,736	23,736	33,736	33,736	33,736			33,736	33,736	33,736	33,730
Total Revenues (JD)			100 m	5,512	7,958	18,637	14,000	18,939	25,271	33,736	33,736	31,738	21,736	33,736	13,736			13,736	35,736	33,736	23,736
Ner Cash Flow (ID)			-141,688	1.511	1,918	6,617	16,113	14,033	21,271	39,736	19,736	11,736	19,736	18,736	29,736			29,736	39,736	29,736	29,79
Discounting (DR=5%)			1.55250	0.98703	0.86384	0.02278	0.76383	0.74622	0.71061	U. 5T684	0.64461	0.61391	0.58488	D.55634	0.53832			0.40102	0.45511	8.43830	1.4155
Tirtal Oty Whose Bills are Callected (er')	12.30		1	49.0,965	509,378	544.101	583.412	628,589	662,641	T07,584	TI2,514	787,594	787.534	207,534	797,504	4 787.	104	787,504	797,504	717,504	707,50
FIRE	12.6%		-134,933	- 22	3332	25.00	22.2	10000	1000000	05.000		149.520	31153134	35500	9.55	2 (49	0.00		10000		1000
MPW (JD)	184,611			1,301	1,428	3,453	7,962	11,141	15,133	28,127	18,165	18,156	17,316	16,558	15,770			14,304	15,625	12,874	12,39
PV of Total Costs (JD)	192,614		134,935	3,624	1,455	3,291	3,134	2,985	1,841	2,587	3,578	1,456	2,539	2,227	2,121		120	1,934	1,832	1,745	1,660
PV of Total Bills Collected Qtp (px*) Unit Water Price (Rishn*)	9,457,165		- 1	299,962	441,011	447,623	455,324	463,083	47E,941	471,267	458,063	424,348	411,663	383,885	375,204	4 157,	130	340,321	334,116	188,682	293,983
Economic Analysis (JD at 2001 Prices)	- 41																				
ten	Periont :	Accept	2003	3004	2005	2006	2017	2011	3089	:2011	2011	3012	:2013	3014	2815	2816		2917	2918	2819	2130
Costs	1.015,66	3817.92	****			2000	****			2001	4001				01500	. 4410	300		3750	4015	- 6400
Local Curposess			315,794	340	140	140	140	140	140	140	140	140	140	140	141		48	146	148	141	141
Fiereign Compensents			9,854	0 -	0	0	0.	0	-0	0	0	0	0	31	200	6	1	1	- 1	1	200
Duby & Trans					0	0	0	. 0	0	0	0.	. D	0			f	1		. 1	1	0.0
Total Capital Costs			.115,654	140	140	140	140	140	140		140	140	140	146	148	E	4.0	148	148	149	14
Cursulative Centr			135,654	125,794	125,334	126,674	126,214	125,354	126,494	126,834	126,714	126,914	LUT,054	127,194	127,354	4 127,	34	127,614	127,734	127,884	129,03
O & M Costs			0	4.000	4,880	4,610	4,800	4,000	4,100	4,800	4,900	4,100	4,000	4,000	4,000	f. 4.	300	4,008	4,008	4,018	4,00
Total Casts			115,654	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,141	4,148	4.	48	4,148	4,148	4,148	4,141
Densite																					
Industrial Usage Qty (m²)			.0	0	0.	. 0	.0	0	0	- 0	0	0	0				100				
Unit Elements of Industrial Water (IDian')			2.748	2.748	1.748	2,748	2.748	2.341	1.341	1 740	1 740	2.740	3.740	1340	2.740	0 2	M0	2740	2740	2740	274
Industrial Besefits (7D)			0	0	0	0	0	0 :	0	- 0	.0	0	0		- 1	1	1		- 1		
Irrigation Unage Qty (ts.")			0	581,895	565,875	587,812	631,654	687,300	794,958	244,741	244,741	246,74.1	744,741	746,761	744,741			744,743	744,741	744,741	744,14
Vait Breefits of Impation Water (ID/or')			1110	1.134	1.1(24)	0,824	0.853	0.853	0.853	0.853	0.853	0.163	0.053	0.053	0.053		63	0.053	0.053	0.053	0.05
Irrigation Describs (3D)			0	12,282	13,780	34,337	33,409	35,358	37,354	39,462	29,462	39,462	29,462	39,463	59,461			39,460	39,462	38,463	35,46
Total Resetts (ID)			0	13,312	11,740	14,53T	32,459	25,350	17,359	39,462	39,462	39,462	39,462	39,461	39,463			39,463	38,463	28,442	28,44
Het Cook Flow (JD)			-125,654	8,061	5,628	111,397	29,309	31,210	33,214	35,322	35,322	35,322	35,322	35,322	35,322			35,322	35,322	35,322	35,32
Discounting (DR=18%)			1.61908	0.83645	0.75131	0.65301	0.63083	0.36447	0.51216	0.46651	0.4240.0	0.38154	0.35849	0.31883	0.28866			E 21839	1.21763	8.18704	8.1780
Tinal Qty Delivered (m²)				501,895	560,973	597,912	631,654	667,388	T04,951	T44,741	794,741	764,741	764,741	344,341	744,741	1 744	141	744,741	744,741	344,741	744,74
MAR.	18.7%		5.772694		35272.53		2000	100000	12020			THE STATE OF				H 44					
NPV (JD)	121,651		4.14,230	6,663	7,328	9.100	31,731	12,612	17,044	36,478	34,590	33,418	12,390	31,255	10,331		101	0.456	T. 637	6,988	6,35
FV of Total Costs (ID)	149,491		114,131	3,421	3,310	2,838	2,571	2,337	2,1.24	1,000	1,756	1,590	1,431	1,215	1,199		OF.	991	900	213	141
PV of Total Qty Delitwed (nc ³)	5,713,938		0	414,789	435,334	488,312	192,300	176,674	161,755	141,427	315,843,	287,130	361,027	227,297	315,728	5 196,	14	170,285	161,007	143,343.	133,94
Unit Water Price (Filmin)	26																				

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