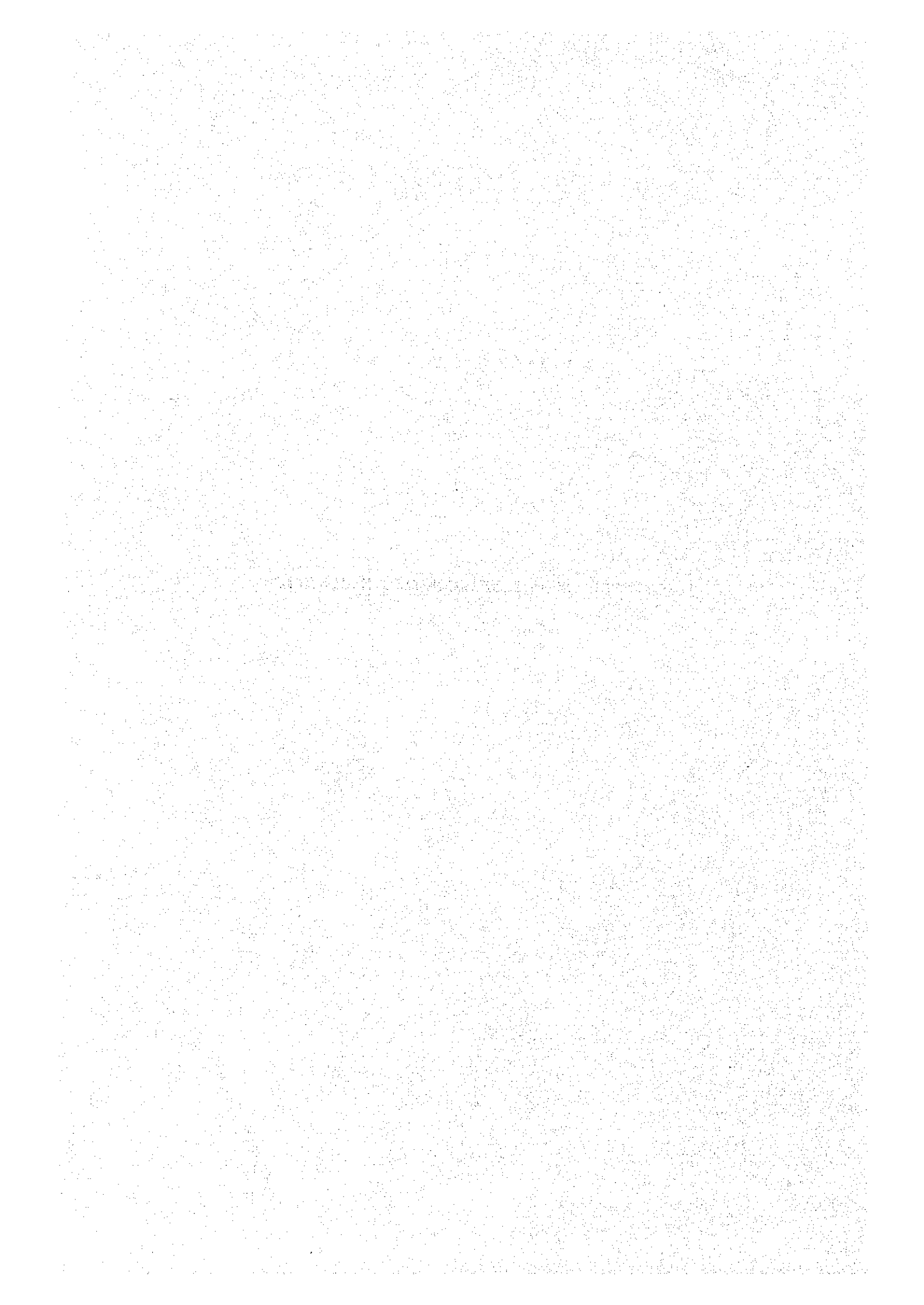


A P P E N D I X - 4

COMPUTER OUTPUT OF ECONOMIC EVALUATION



Debris Control Project

***** ALT 1-3 *****

***** ALT 1-3 *****

YEAR	COST		BENEFIT			DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	DIRECT	INDIRECT					
1987	4981.0	4981.0	.0	.0	.0	0	21722.	69010.	3.1770	47288.
1988	4980.0	4980.0	.0	.0	.0	1	20945.	53753.	2.5663	32808.
1989	4980.0	4980.0	.0	.0	.0	2	20251.	42518.	2.0996	22287.
1990	3986.0	3950.0	794.8	998.8	1.8	3	19620.	34139.	1.7400	14519.
1991	1535.0	1499.0	1001.0	998.8	2.2	4	19042.	27811.	1.4605	8769.
1992	36.0	.0	1448.8	1445.6	3.2	5	18507.	22968.	1.2411	4461.
1993	36.0	.0	1435.1	1431.8	3.2	6	18007.	19214.	1.0670	1207.
1994	36.0	.0	1444.5	1441.2	3.3	7	17598.	16267.	.9275	-1271.
1995	36.0	.0	1454.1	1450.8	3.3	8	17095.	13923.	.8145	-3172.
1996	36.0	.0	1463.9	1460.5	3.4	9	16675.	12037.	.7218	-4638.
1997	36.0	.0	1473.8	1470.4	3.4	10	16277.	10501.	.6452	-5775.
1998	36.0	.0	1483.8	1480.4	3.4	11	15896.	9237.	.5811	-6660.
1999	36.0	.0	1494.1	1490.6	3.5	12	15533.	8184.	.5269	-7349.
2000	36.0	.0	1504.5	1501.0	3.5	13	15185.	7300.	.4807	-7885.
2001	36.0	.0	1515.1	1511.5	3.6	14	14852.	6550.	.4410	-8302.
2002	36.0	.0	1525.8	1522.2	3.6	15	14532.	5909.	.4066	-8623.
2003	36.0	.0	1536.8	1533.1	3.6	16	14224.	5356.	.3765	-8868.
2004	36.0	.0	1547.9	1544.2	3.7	17	13928.	4876.	.3501	-9052.
2005	36.0	.0	1559.2	1555.5	3.7	18	13643.	4456.	.3266	-9187.
2006	36.0	.0	1570.7	1567.0	3.8	19	13368.	4087.	.3057	-9281.
2007	36.0	.0	1582.5	1578.6	3.8	20	13102.	3761.	.2870	-9342.
2008	36.0	.0	1594.4	1590.5	3.9	21	12846.	3470.	.2702	-9376.
2009	36.0	.0	1606.5	1602.6	3.9	22	12599.	3211.	.2549	-9387.
2010	36.0	.0	1618.9	1614.9	4.0	23	12360.	2979.	.2410	-9381.
2011	36.0	.0	1631.4	1627.4	4.0	24	12128.	2770.	.2284	-9358.
2012	36.0	.0	1644.2	1640.2	4.0	25	11905.	2581.	.2168	-9324.
2013	36.0	.0	1657.3	1653.2	4.1	26	11688.	2410.	.2062	-9278.
2014	36.0	.0	1670.5	1666.4	4.1	27	11478.	2254.	.1963	-9224.
2015	36.0	.0	1684.0	1679.8	4.2	28	11275.	2111.	.1873	-9163.
2016	36.0	.0	1697.8	1693.5	4.2	29	11078.	1981.	.1789	-9096.
2017	36.0	.0	1711.8	1707.5	4.3	30	10886.	1862.	.1711	-9024.
2018	36.0	.0	1726.0	1721.7	4.3					
2019	36.0	.0	1740.6	1736.2	4.4					
2020	36.0	.0	1755.4	1750.9	4.4					
2021	36.0	.0	1770.4	1765.9	4.5					
2022	36.0	.0	1785.8	1781.3	4.5					
2023	36.0	.0	1801.4	1796.9	4.6					
2024	36.0	.0	1817.4	1812.8	4.7					
2025	36.0	.0	1833.7	1829.0	4.7					
2026	36.0	.0	1845.5	1845.5	4.8					
			10576.1							

INTERNAL RATE OF RETURN 6.49 PER CENT

ALT-1 (A) Water Conservation Project

***** PRIMARY PROFIT (WITH PROJECT) *****
 WET SEASON PADDY

***** PRIMARY PROFIT (WITH PROJECT) *****
 DRY SEASON PADDY

YEAR	YIELD TONS/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
1991	4.435	.135	.661	.150	.451	3500.000	1579.196	4.119	.135	.556	.150	.406	5250.100	2132.113
1992	4.507	.135	.688	.150	.458	3500.000	1604.447	4.169	.135	.563	.150	.413	5250.100	2167.148
1993	4.581	.135	.616	.150	.466	3500.000	1630.000	4.219	.135	.570	.150	.420	5250.100	2202.605
1994	4.616	.135	.623	.150	.473	3500.000	1655.860	4.269	.135	.576	.150	.426	5250.100	2238.486
1995	4.671	.135	.631	.150	.481	3500.000	1682.030	4.321	.135	.583	.150	.433	5250.100	2274.758
1996	4.727	.135	.638	.150	.488	3500.000	1708.515	4.372	.135	.590	.150	.440	5250.100	2311.545
1997	4.784	.135	.646	.150	.496	3500.000	1735.317	4.425	.135	.597	.150	.447	5250.100	2348.734
1998	4.841	.135	.654	.150	.504	3500.000	1762.441	4.478	.135	.605	.150	.455	5250.100	2386.369
1999	4.899	.135	.661	.150	.511	3500.000	1789.890	4.500	.135	.608	.150	.458	5250.100	2401.921
2000	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2001	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2002	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2003	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2004	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2005	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2006	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2007	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2008	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2009	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2010	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2011	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2012	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2013	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2014	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2015	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2016	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2017	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2018	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2019	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2020	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2021	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2022	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2023	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2024	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921
2025	4.900	.135	.662	.150	.512	3500.000	1790.250	4.500	.135	.608	.150	.458	5250.100	2401.921

ALT-1

**** PRIMARY PROFIT (WITH PROJECT) ****

POROWILO

**** PRIMARY PROFIT (WITHOUT PROJECT) ****

POROWILO

ALT-1														
**** PRIMARY PROFIT (WITH PROJECT) ****														
POROWILO														
YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	ALT-1							
YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA					
Malt	.800	.120	.096	.030	.066	1750.100	115.507	1991	4.119	.135	.556	.150	.406	.000
								1992	4.169	.135	.563	.150	.413	.000
								1993	4.219	.135	.570	.150	.420	.000
								1994	4.269	.135	.576	.150	.426	.000
								1995	4.321	.135	.583	.150	.433	.000
								1996	4.372	.135	.590	.150	.440	.000
								1997	4.425	.135	.597	.150	.447	.000
								1998	4.478	.135	.605	.150	.455	.000
								1999	4.500	.135	.608	.150	.458	.000
								2000	4.500	.135	.608	.150	.458	.000
								2001	4.500	.135	.608	.150	.458	.000
								2002	4.500	.135	.608	.150	.458	.000
								2003	4.500	.135	.608	.150	.458	.000
								2004	4.500	.135	.608	.150	.458	.000
								2005	4.500	.135	.608	.150	.458	.000
								2006	4.500	.135	.608	.150	.458	.000
								2007	4.500	.135	.608	.150	.458	.000
								2008	4.500	.135	.608	.150	.458	.000
								2009	4.500	.135	.608	.150	.458	.000
								2010	4.500	.135	.608	.150	.458	.000
								2011	4.500	.135	.608	.150	.458	.000
								2012	4.500	.135	.608	.150	.458	.000
								2013	4.500	.135	.608	.150	.458	.000
								2014	4.500	.135	.608	.150	.458	.000
								2015	4.500	.135	.608	.150	.458	.000
								2016	4.500	.135	.608	.150	.458	.000
								2017	4.500	.135	.608	.150	.458	.000
								2018	4.500	.135	.608	.150	.458	.000
								2019	4.500	.135	.608	.150	.458	.000
								2020	4.500	.135	.608	.150	.458	.000
								2021	4.500	.135	.608	.150	.458	.000
								2022	4.500	.135	.608	.150	.458	.000
								2023	4.500	.135	.608	.150	.458	.000
								2024	4.500	.135	.608	.150	.458	.000
								2025	4.500	.135	.608	.150	.458	.000

ALT-1									
**** PRIMARY PROFIT (WITHOUT PROJECT) ****									
POROWILO									
YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	ALT-1		
YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA
UPLAND RICE	1.400	.189	.090	.099	.000	.000			
SUGAR CANE	80.000	.015	.420	.780	303.500	236.730			
MILZE	.800	.120	.030	.066	5530.200	282.993			
SOY BEAN	.920	.300	.070	.206	1593.800	328.323			
CASSAVA	9.700	.045	.030	.387	1532.600	592.350			

***** ALT-1 *****

***** ALT-1 *****

YEAR	COST		BENEFIT			DISCOUNT RATE	ACCUM. DISCOUNTED COST	ACCUM. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	BENEFIT	SALVAGE V.					
1986	3934.	0.	0.	0.	0.	0	2973.	12986.	4.2014	93713.
1987	3934.	0.	0.	0.	0.	1	27423.	97120.	3.5415	69697.
1988	3934.	0.	0.	0.	0.	2	23870.	77698.	3.0034	51828.
1989	6015.	0.	0.	0.	0.	3	24543.	62942.	2.5646	38399.
1990	6015.	0.	0.	0.	0.	4	23368.	51599.	2.2062	28211.
1991	155.	155.	2882.	0.	0.	5	22370.	42778.	1.9123	20408.
1992	155.	155.	2943.	0.	0.	6	21440.	35839.	1.6700	14379.
1993	155.	155.	3004.	0.	0.	7	20638.	30320.	1.4692	9683.
1994	155.	155.	3065.	0.	0.	8	19887.	25884.	1.3015	5977.
1995	155.	155.	3128.	0.	0.	9	19197.	22280.	1.1606	3083.
1996	155.	155.	3191.	0.	0.	10	18558.	19324.	1.0413	766.
1997	155.	155.	3255.	0.	0.	11	17963.	16876.	.9395	-1087.
1998	155.	155.	3320.	0.	0.	12	17407.	14892.	.8521	-2575.
1999	155.	155.	3383.	0.	0.	13	16884.	13111.	.7765	-3773.
2000	155.	155.	3363.	0.	0.	14	16391.	11650.	.7107	-4741.
2001	155.	155.	3363.	0.	0.	15	15924.	10401.	.6531	-5523.
2002	155.	155.	3363.	0.	0.	16	15482.	9326.	.6024	-6156.
2003	155.	155.	3363.	0.	0.	17	15062.	8396.	.5574	-6666.
2004	155.	155.	3363.	0.	0.	18	14663.	7587.	.5174	-7078.
2005	155.	155.	3363.	0.	0.	19	14282.	6878.	.4816	-7404.
2006	155.	155.	3363.	0.	0.	20	13918.	6255.	.4494	-7663.
2007	155.	155.	3363.	0.	0.	21	13570.	5704.	.4203	-7866.
2008	155.	155.	3363.	0.	0.	22	13237.	5215.	.3940	-8072.
2009	155.	155.	3363.	0.	0.	23	12918.	4780.	.3701	-8138.
2010	155.	155.	3363.	0.	0.	24	12612.	4392.	.3482	-8220.
2011	155.	155.	3363.	0.	0.	25	12319.	4043.	.3282	-8275.
2012	155.	155.	3363.	0.	0.	26	12036.	3729.	.3099	-8307.
2013	155.	155.	3363.	0.	0.	27	11765.	3447.	.2929	-8319.
2014	155.	155.	3363.	0.	0.	28	11504.	3191.	.2774	-8314.
2015	155.	155.	3363.	0.	0.	29	11253.	2959.	.2629	-8294.
2016	155.	155.	3363.	0.	0.	30	11011.	2748.	.2495	-8263.
2017	155.	155.	3363.	0.	0.					
2018	155.	155.	3363.	0.	0.					
2019	155.	155.	3363.	0.	0.					
2020	155.	155.	3363.	0.	0.					
2021	155.	155.	3363.	0.	0.					
2022	155.	155.	3363.	0.	0.					
2023	155.	155.	3363.	0.	0.					
2024	155.	155.	3363.	0.	0.					
2025	155.	155.	10732.	7389.	446.					

INTERNAL RATE OF RETURN 10.41 PER CENT

***** PRIMARY PROFIT (WITH PROJECT) *****

DRY SEASON PADDY

***** PRIMARY PROFIT (WITH PROJECT) *****

NET SEASON PADDY

YIELD TOM/HA	UNIT PRICE 10x+6 RP/TON	GROSS PROFIT 10x+6 RP/HA	INPUT COST 10x+6 RP/HA	NET PROFIT 10x+6 RP/HA	HARV. AREA HA	NET PROFIT 10x+6 RP	YIELD TOM/HA	UNIT PRICE 10x+6 RP/TON	GROSS PROFIT 10x+6 RP/HA	INPUT COST 10x+6 RP/HA	NET PROFIT 10x+6 RP/HA	HARV. AREA HA	NET PROFIT 10x+6 RP
1991	4.353	.601	.150	.451	3500.000	1579.196	1991	.135	.556	.150	.406	5250.100	2132.115
1992	4.507	.608	.150	.458	3500.000	1604.447	1992	.135	.563	.150	.413	5250.100	2167.148
1993	4.561	.616	.150	.466	3500.000	1630.000	1993	.135	.570	.150	.420	5250.100	2202.605
1994	4.616	.623	.150	.473	3500.000	1655.860	1994	.135	.576	.150	.426	5250.100	2238.486
1995	4.671	.631	.150	.481	3500.000	1682.030	1995	.135	.583	.150	.433	5250.100	2274.798
1996	4.727	.638	.150	.488	3500.000	1708.515	1996	.135	.590	.150	.440	5250.100	2311.545
1997	4.784	.646	.150	.496	3500.000	1735.317	1997	.135	.597	.150	.447	5250.100	2348.734
1998	4.841	.654	.150	.504	3500.000	1762.441	1998	.135	.605	.150	.455	5250.100	2386.369
1999	4.899	.661	.150	.511	3500.000	1789.890	1999	.135	.608	.150	.458	5250.100	2401.921
2000	4.956	.668	.150	.518	3500.000	1790.250	2000	.135	.608	.150	.458	5250.100	2401.921
2001	4.960	.662	.150	.512	3500.000	1790.250	2001	.135	.608	.150	.458	5250.100	2401.921
2002	4.960	.662	.150	.512	3500.000	1790.250	2002	.135	.608	.150	.458	5250.100	2401.921
2003	4.960	.662	.150	.512	3500.000	1790.250	2003	.135	.608	.150	.458	5250.100	2401.921
2004	4.960	.662	.150	.512	3500.000	1790.250	2004	.135	.608	.150	.458	5250.100	2401.921
2005	4.960	.662	.150	.512	3500.000	1790.250	2005	.135	.608	.150	.458	5250.100	2401.921
2006	4.960	.662	.150	.512	3500.000	1790.250	2006	.135	.608	.150	.458	5250.100	2401.921
2007	4.960	.662	.150	.512	3500.000	1790.250	2007	.135	.608	.150	.458	5250.100	2401.921
2008	4.960	.662	.150	.512	3500.000	1790.250	2008	.135	.608	.150	.458	5250.100	2401.921
2009	4.960	.662	.150	.512	3500.000	1790.250	2009	.135	.608	.150	.458	5250.100	2401.921
2010	4.960	.662	.150	.512	3500.000	1790.250	2010	.135	.608	.150	.458	5250.100	2401.921
2011	4.960	.662	.150	.512	3500.000	1790.250	2011	.135	.608	.150	.458	5250.100	2401.921
2012	4.960	.662	.150	.512	3500.000	1790.250	2012	.135	.608	.150	.458	5250.100	2401.921
2013	4.960	.662	.150	.512	3500.000	1790.250	2013	.135	.608	.150	.458	5250.100	2401.921
2014	4.960	.662	.150	.512	3500.000	1790.250	2014	.135	.608	.150	.458	5250.100	2401.921
2015	4.960	.662	.150	.512	3500.000	1790.250	2015	.135	.608	.150	.458	5250.100	2401.921
2016	4.960	.662	.150	.512	3500.000	1790.250	2016	.135	.608	.150	.458	5250.100	2401.921
2017	4.960	.662	.150	.512	3500.000	1790.250	2017	.135	.608	.150	.458	5250.100	2401.921
2018	4.960	.662	.150	.512	3500.000	1790.250	2018	.135	.608	.150	.458	5250.100	2401.921
2019	4.960	.662	.150	.512	3500.000	1790.250	2019	.135	.608	.150	.458	5250.100	2401.921
2020	4.960	.662	.150	.512	3500.000	1790.250	2020	.135	.608	.150	.458	5250.100	2401.921
2021	4.960	.662	.150	.512	3500.000	1790.250	2021	.135	.608	.150	.458	5250.100	2401.921
2022	4.960	.662	.150	.512	3500.000	1790.250	2022	.135	.608	.150	.458	5250.100	2401.921
2023	4.960	.662	.150	.512	3500.000	1790.250	2023	.135	.608	.150	.458	5250.100	2401.921
2024	4.960	.662	.150	.512	3500.000	1790.250	2024	.135	.608	.150	.458	5250.100	2401.921
2025	4.960	.662	.150	.512	3500.000	1790.250	2025	.135	.608	.150	.458	5250.100	2401.921

ALT-2

ALT-2

***** PRIMARY PROFIT (WITH PROJECT) *****
 ***** PRIMARY PROFIT (WITHOUT PROJECT) *****
 NET SEASON PROFIT

POROWIJO

***** PRIMARY PROFIT (WITH PROJECT) *****										***** PRIMARY PROFIT (WITHOUT PROJECT) *****									
NET SEASON PROFIT										NET SEASON PROFIT									
YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP						
MALTE	.800	.120	.076	.080	.066	115.507	1991	4.119	.135	.556	.150	.406	.000	.000					
							1992	4.169	.135	.583	.150	.413	.000	.000					
							1993	4.219	.135	.570	.150	.420	.000	.000					
							1994	4.269	.135	.576	.150	.426	.000	.000					
							1995	4.321	.135	.583	.150	.433	.000	.000					
							1996	4.372	.135	.590	.150	.440	.000	.000					
							1997	4.425	.135	.597	.150	.447	.000	.000					
							1998	4.478	.135	.605	.150	.455	.000	.000					
							1999	4.500	.135	.608	.150	.458	.000	.000					
							2000	4.500	.135	.608	.150	.458	.000	.000					
							2001	4.500	.135	.608	.150	.458	.000	.000					
							2002	4.500	.135	.608	.150	.458	.000	.000					
							2003	4.500	.135	.608	.150	.458	.000	.000					
							2004	4.500	.135	.608	.150	.458	.000	.000					
							2005	4.500	.135	.608	.150	.458	.000	.000					
							2006	4.500	.135	.608	.150	.458	.000	.000					
							2007	4.500	.135	.608	.150	.458	.000	.000					
							2008	4.500	.135	.608	.150	.458	.000	.000					
							2009	4.500	.135	.608	.150	.458	.000	.000					
							2010	4.500	.135	.608	.150	.458	.000	.000					
							2011	4.500	.135	.608	.150	.458	.000	.000					
							2012	4.500	.135	.608	.150	.458	.000	.000					
							2013	4.500	.135	.608	.150	.458	.000	.000					
							2014	4.500	.135	.608	.150	.458	.000	.000					
							2015	4.500	.135	.608	.150	.458	.000	.000					
							2016	4.500	.135	.608	.150	.458	.000	.000					
							2017	4.500	.135	.608	.150	.458	.000	.000					
							2018	4.500	.135	.608	.150	.458	.000	.000					
							2019	4.500	.135	.608	.150	.458	.000	.000					
							2020	4.500	.135	.608	.150	.458	.000	.000					
							2021	4.500	.135	.608	.150	.458	.000	.000					
							2022	4.500	.135	.608	.150	.458	.000	.000					
							2023	4.500	.135	.608	.150	.458	.000	.000					
							2024	4.500	.135	.608	.150	.458	.000	.000					
							2025	4.500	.135	.608	.150	.458	.000	.000					

ALT-2

***** PRIMARY PROFIT (WITH PROJECT) *****

***** PRIMARY PROFIT (WITHOUT PROJECT) *****

POROWIJO

***** PRIMARY PROFIT (WITH PROJECT) *****										***** PRIMARY PROFIT (WITHOUT PROJECT) *****									
NET SEASON PROFIT										NET SEASON PROFIT									
YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP						
UPLAND RICE	1.400	.135	.189	.090	.099	.000	1991	4.119	.135	.556	.150	.406	.000						
SHRUB CANE	80.000	.015	1.200	.420	.780	236.730	1992	4.169	.135	.583	.150	.413	.000						
MALTE	.800	.120	.076	.080	.066	115.507	1993	4.219	.135	.570	.150	.420	.000						
SOY BEAN	.920	.300	.276	.070	.206	328.323	1994	4.269	.135	.576	.150	.426	.000						
CASSAVA	9.700	.045	.437	.050	.387	592.850	1995	4.321	.135	.583	.150	.433	.000						

**** ALI-2 ****

**** ALI-2 ****

YEAR	COST		BENEFIT		DISCOUNT RATE	ACCUM. DISCOUNTED COST	ACCUM. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	SALVAGE V. WITH					
				WITHOUT POWER GEN.					
1986	2064.	2064.	0.	0.	0	1761.	120180.	6.6912	102219.
1987	2064.	2064.	0.	0.	1	16778.	95236.	5.6761	78458.
1988	2064.	2064.	0.	0.	2	15786.	76428.	4.8414	60441.
1989	4145.	4145.	0.	0.	3	14939.	62082.	4.1558	47143.
1990	4145.	4145.	0.	0.	4	14203.	51014.	3.5919	36812.
1991	99.	0.	2882.	3827.	5	13554.	42379.	3.1268	28875.
1992	99.	0.	2943.	3887.	6	12974.	35566.	2.7413	22572.
1993	99.	0.	3004.	3948.	7	12452.	30133.	2.4200	17682.
1994	99.	0.	3065.	4010.	8	11975.	25755.	2.1507	13780.
1995	99.	0.	3128.	4072.	9	11537.	22191.	1.9234	10653.
1996	99.	0.	3191.	4136.	10	11133.	19262.	1.7302	8129.
1997	99.	0.	3255.	4200.	11	10756.	16833.	1.5650	6077.
1998	99.	0.	3320.	4264.	12	10405.	14802.	1.4226	4397.
1999	99.	0.	3363.	4307.	13	10074.	13089.	1.2993	3015.
2000	99.	0.	3363.	4308.	14	9764.	11635.	1.1916	1871.
2001	99.	0.	3363.	4308.	15	9470.	10390.	1.0972	920.
2002	99.	0.	3363.	4308.	16	9192.	9319.	1.0138	127.
2003	99.	0.	3363.	4308.	17	8929.	8391.	.9398	-588.
2004	99.	0.	3363.	4308.	18	8678.	7583.	.8738	-1095.
2005	99.	0.	3363.	4308.	19	8439.	6875.	.8147	-1564.
2006	99.	0.	3363.	4308.	20	8212.	6253.	.7614	-1959.
2007	99.	0.	3363.	4308.	21	7995.	5703.	.7133	-2292.
2008	99.	0.	3363.	4308.	22	7787.	5214.	.6697	-2572.
2009	99.	0.	3363.	4308.	23	7588.	4780.	.6299	-2898.
2010	99.	0.	3363.	4308.	24	7398.	4391.	.5936	-3006.
2011	99.	0.	3363.	4308.	25	7215.	4043.	.5603	-3172.
2012	99.	0.	3363.	4308.	26	7040.	3729.	.5297	-3311.
2013	99.	0.	3363.	4308.	27	6872.	3446.	.5015	-3425.
2014	99.	0.	3363.	4308.	28	6710.	3191.	.4755	-3520.
2015	99.	0.	3363.	4308.	29	6555.	2959.	.4514	-3596.
2016	99.	0.	3363.	4308.	30	6405.	2748.	.4290	-3658.
2017	99.	0.	3363.	4308.					
2018	99.	0.	3363.	4308.					
2019	99.	0.	3363.	4308.					
2020	99.	0.	3363.	4308.					
2021	99.	0.	3363.	4308.					
2022	99.	0.	3363.	4308.					
2023	99.	0.	3363.	4308.					
2024	99.	0.	3363.	4308.					
2025	99.	0.	7947.	4583.					

INTERNAL RATE OF RETURN 16.19 PER CENT

ALI-3 (C)

***** PRIMARY PROFIT (WITH PROJECT) *****

DRY SEASON PADDY

***** PRIMARY PROFIT (WITH PROJECT) *****

WET SEASON PADDY

YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
1991	4.452	.135	.601	.150	4000.000	1804.796	1991	4.119	.135	.556	.150	6000.100	2436.695
1992	4.507	.135	.608	.150	4000.000	1833.653	1992	4.169	.135	.563	.150	6000.100	2476.735
1993	4.561	.135	.616	.150	4000.000	1862.657	1993	4.219	.135	.570	.150	6000.100	2517.237
1994	4.616	.135	.623	.150	4000.000	1892.412	1994	4.269	.135	.576	.150	6000.100	2558.263
1995	4.671	.135	.631	.150	4000.000	1922.320	1995	4.321	.135	.583	.150	6000.100	2599.763
1996	4.727	.135	.638	.150	4000.000	1952.588	1996	4.372	.135	.590	.150	6000.100	2641.760
1997	4.784	.135	.646	.150	4000.000	1983.219	1997	4.423	.135	.597	.150	6000.100	2684.261
1998	4.841	.135	.654	.150	4000.000	2014.218	1998	4.473	.135	.605	.150	6000.100	2727.272
1999	4.899	.135	.661	.150	4000.000	2045.588	1999	4.500	.135	.608	.150	6000.100	2745.046
2000	4.950	.135	.662	.150	4000.000	2046.000	2000	4.500	.135	.608	.150	6000.100	2745.046
2001	4.900	.135	.662	.150	4000.000	2046.000	2001	4.500	.135	.608	.150	6000.100	2745.046
2002	4.900	.135	.662	.150	4000.000	2046.000	2002	4.500	.135	.608	.150	6000.100	2745.046
2003	4.900	.135	.662	.150	4000.000	2046.000	2003	4.500	.135	.608	.150	6000.100	2745.046
2004	4.900	.135	.662	.150	4000.000	2046.000	2004	4.500	.135	.608	.150	6000.100	2745.046
2005	4.900	.135	.662	.150	4000.000	2046.000	2005	4.500	.135	.608	.150	6000.100	2745.046
2006	4.900	.135	.662	.150	4000.000	2046.000	2006	4.500	.135	.608	.150	6000.100	2745.046
2007	4.900	.135	.662	.150	4000.000	2046.000	2007	4.500	.135	.608	.150	6000.100	2745.046
2008	4.900	.135	.662	.150	4000.000	2046.000	2008	4.500	.135	.608	.150	6000.100	2745.046
2009	4.900	.135	.662	.150	4000.000	2046.000	2009	4.500	.135	.608	.150	6000.100	2745.046
2010	4.900	.135	.662	.150	4000.000	2046.000	2010	4.500	.135	.608	.150	6000.100	2745.046
2011	4.900	.135	.662	.150	4000.000	2046.000	2011	4.500	.135	.608	.150	6000.100	2745.046
2012	4.900	.135	.662	.150	4000.000	2046.000	2012	4.500	.135	.608	.150	6000.100	2745.046
2013	4.900	.135	.662	.150	4000.000	2046.000	2013	4.500	.135	.608	.150	6000.100	2745.046
2014	4.900	.135	.662	.150	4000.000	2046.000	2014	4.500	.135	.608	.150	6000.100	2745.046
2015	4.900	.135	.662	.150	4000.000	2046.000	2015	4.500	.135	.608	.150	6000.100	2745.046
2016	4.900	.135	.662	.150	4000.000	2046.000	2016	4.500	.135	.608	.150	6000.100	2745.046
2017	4.900	.135	.662	.150	4000.000	2046.000	2017	4.500	.135	.608	.150	6000.100	2745.046
2018	4.900	.135	.662	.150	4000.000	2046.000	2018	4.500	.135	.608	.150	6000.100	2745.046
2019	4.900	.135	.662	.150	4000.000	2046.000	2019	4.500	.135	.608	.150	6000.100	2745.046
2020	4.900	.135	.662	.150	4000.000	2046.000	2020	4.500	.135	.608	.150	6000.100	2745.046
2021	4.900	.135	.662	.150	4000.000	2046.000	2021	4.500	.135	.608	.150	6000.100	2745.046
2022	4.900	.135	.662	.150	4000.000	2046.000	2022	4.500	.135	.608	.150	6000.100	2745.046
2023	4.900	.135	.662	.150	4000.000	2046.000	2023	4.500	.135	.608	.150	6000.100	2745.046
2024	4.900	.135	.662	.150	4000.000	2046.000	2024	4.500	.135	.608	.150	6000.100	2745.046
2025	4.900	.135	.662	.150	4000.000	2046.000	2025	4.500	.135	.608	.150	6000.100	2745.046

AL-3

***** PRIMARY PROFIT (WITH PROJECT) *****

***** PRIMARY PROFIT (WITHOUT PROJECT) *****

NET SEASON PADDY

AL-3

***** PRIMARY PROFIT (WITH PROJECT) *****

POROWUJO

CROP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
MAIZE	.840	.128	.096	.080	.066	2000.100	132.007	4.119	.135	.556	.150	.406	.000	.000
								1991						
								1992						
								1993						
								1994						
								1995						
								1996						
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								2022						
								2023						
								2024						
								2025						

CROP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
UPLAND RICE	1.400	.135	.189	.090	.099	.000	.000
SWEET CORN	80.000	.015	1.200	.420	.780	364.200	284.076
MAIZE	.800	.120	.096	.080	.066	4405.400	298.756
SUI BEAN	.920	.300	.276	.070	.206	2031.400	418.468
CASSAVA	9.700	.045	.437	.050	.387	1352.600	592.350

**** ALT-3 ****

**** ALT-3 ****

YEAR	COST		BENEFIT		DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	HPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	BENEFIT SALVAGE V.					
1986	3934.	0.	0.	0.	0	50560.	139511.	2.7593	88951.
1987	3934.	0.	0.	0.	1	44690.	110234.	2.4666	65544.
1988	3934.	0.	0.	0.	2	40065.	88234.	2.2023	48169.
1989	6807.	0.	0.	0.	3	36363.	71509.	1.9665	35146.
1990	6807.	0.	0.	0.	4	33352.	58645.	1.7584	25293.
1991	718.	718.	3281.	0.	5	30864.	48636.	1.5758	17772.
1992	718.	0.	3350.	0.	6	28777.	40758.	1.4163	11881.
1993	718.	0.	3419.	0.	7	27003.	34490.	1.2773	7488.
1994	718.	0.	3490.	0.	8	25473.	29449.	1.1561	3976.
1995	718.	0.	3561.	0.	9	24139.	25353.	1.0503	1214.
1996	718.	0.	3634.	0.	10	22961.	21992.	.9578	-970.
1997	718.	0.	3707.	0.	11	21913.	19208.	.8766	-2704.
1998	718.	0.	3781.	0.	12	20970.	16883.	.8051	-4087.
1999	718.	0.	3830.	0.	13	20116.	14924.	.7419	-5192.
2000	718.	0.	3830.	0.	14	19337.	13262.	.6858	-6076.
2001	718.	0.	3830.	0.	15	18622.	11841.	.6358	-6781.
2002	718.	0.	3830.	0.	16	17962.	10618.	.5911	-7344.
2003	718.	0.	3830.	0.	17	17350.	9559.	.5510	-7791.
2004	718.	0.	3830.	0.	18	16780.	8637.	.5147	-8142.
2005	718.	0.	3830.	0.	19	16247.	7830.	.4820	-8416.
2006	718.	0.	3830.	0.	20	15747.	7121.	.4522	-8626.
2007	718.	0.	3830.	0.	21	15276.	6494.	.4251	-8782.
2008	718.	0.	3830.	0.	22	14833.	5938.	.4003	-8895.
2009	718.	0.	3830.	0.	23	14414.	5443.	.3776	-8971.
2010	718.	0.	3830.	0.	24	14016.	5000.	.3567	-9016.
2011	718.	0.	3830.	0.	25	13639.	4603.	.3375	-9036.
2012	718.	0.	3830.	0.	26	13281.	4246.	.3197	-9035.
2013	718.	0.	3830.	0.	27	12940.	3924.	.3032	-9016.
2014	718.	0.	3830.	0.	28	12614.	3633.	.2880	-8982.
2015	718.	0.	3830.	0.	29	12304.	3368.	.2738	-8935.
2016	718.	0.	3830.	0.	30	12007.	3128.	.2605	-8876.
2017	718.	0.	3830.	0.					
2018	718.	0.	3830.	0.					
2019	718.	0.	3830.	0.					
2020	718.	0.	3830.	0.					
2021	718.	0.	3830.	0.					
2022	718.	0.	3830.	0.					
2023	718.	0.	3830.	0.					
2024	718.	0.	3830.	0.					
2025	718.	0.	3830.	7868.					

INTERNAL RATE OF RETURN 9.56 PER CENT

***** PRIMARY PROFIT (WITH PROJECT) *****

***** PRIMARY PROFIT (WITH PROJECT) *****

DRY SEASON PADDY

WET SEASON PADDY

YEAR	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	HARV. AREA HA	NET PROFIT 10**6 RP
1991	4.455	.135	.601	.150	.451	4000.000	1804.796	4000.000	2456.695
1992	4.507	.135	.608	.150	.458	4000.000	1833.653	4000.000	2476.735
1993	4.561	.135	.616	.150	.466	4000.000	1862.857	4000.000	2517.257
1994	4.616	.135	.623	.150	.473	4000.000	1892.412	4000.000	2558.263
1995	4.671	.135	.631	.150	.481	4000.000	1922.320	4000.000	2599.763
1996	4.727	.135	.638	.150	.488	4000.000	1952.588	4000.000	2641.760
1997	4.784	.135	.646	.150	.496	4000.000	1983.219	4000.000	2684.261
1998	4.841	.135	.654	.150	.504	4000.000	2014.218	4000.000	2727.272
1999	4.899	.135	.661	.150	.511	4000.000	2045.588	4000.000	2745.045
2000	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2001	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2002	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2003	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2004	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2005	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2006	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2007	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2008	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2009	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2010	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2011	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2012	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2013	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2014	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2015	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2016	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2017	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2018	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2019	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2020	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2021	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2022	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2023	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2024	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046
2025	4.900	.135	.662	.150	.512	4000.000	2046.000	4000.000	2745.046

ALT-4

***** PRIMARY PROFIT (WITH PROJECT) *****

POROWIJO

YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
800	.120	.096	.030	.066	2000.100	132.007
***** PRIMARY PROFIT (WITHOUT PROJECT) *****						
1991	4.119	.536	.150	.406	.000	.000
1992	4.169	.569	.150	.419	.000	.000
1993	4.219	.570	.150	.420	.000	.000
1994	4.269	.576	.150	.426	.000	.000
1995	4.321	.583	.150	.433	.000	.000
1996	4.372	.590	.150	.440	.000	.000
1997	4.425	.597	.150	.447	.000	.000
1998	4.478	.605	.150	.455	.000	.000
1999	4.500	.608	.150	.458	.000	.000
2000	4.500	.608	.150	.458	.000	.000
2001	4.500	.608	.150	.458	.000	.000
2002	4.500	.608	.150	.458	.000	.000
2003	4.500	.608	.150	.458	.000	.000
2004	4.500	.608	.150	.458	.000	.000
2005	4.500	.608	.150	.458	.000	.000
2006	4.500	.608	.150	.458	.000	.000
2007	4.500	.608	.150	.458	.000	.000
2008	4.500	.608	.150	.458	.000	.000
2009	4.500	.608	.150	.458	.000	.000
2010	4.500	.608	.150	.458	.000	.000
2011	4.500	.608	.150	.458	.000	.000
2012	4.500	.608	.150	.458	.000	.000
2013	4.500	.608	.150	.458	.000	.000
2014	4.500	.608	.150	.458	.000	.000
2015	4.500	.608	.150	.458	.000	.000
2016	4.500	.608	.150	.458	.000	.000
2017	4.500	.608	.150	.458	.000	.000
2018	4.500	.608	.150	.458	.000	.000
2019	4.500	.608	.150	.458	.000	.000
2020	4.500	.608	.150	.458	.000	.000
2021	4.500	.608	.150	.458	.000	.000
2022	4.500	.608	.150	.458	.000	.000
2023	4.500	.608	.150	.458	.000	.000
2024	4.500	.608	.150	.458	.000	.000
2025	4.500	.608	.150	.458	.000	.000

ALT-4

***** PRIMARY PROFIT (WITHOUT PROJECT) *****

POROWIJO

YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
1.400	.135	.189	.090	.099	.000	.000
80.000	.015	1.200	.420	.780	964.200	284.076
.800	.120	.096	.030	.066	4405.400	290.756
.920	.300	.276	.070	.206	2031.400	418.468
9.700	.045	.437	.050	.387	1532.600	592.350

ALT-4

***** PRIMARY PROFIT (WITH PROJECT) *****

POROWIJO

***** ALT-4 *****

***** ALT-4 *****

YEAR	COST		BENEFIT		DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	SALVAGE V. WITHOUT POWER GEN.					
1986	2064.	0.	0.	0.	0	39248.	136705.	3.4831	97457.
1987	2064.	0.	0.	0.	1	34045.	108349.	3.1825	74304.
1988	2064.	0.	0.	0.	2	2981.	88964.	2.9006	56982.
1989	4936.	0.	0.	0.	3	26759.	70649.	2.6402	43890.
1990	4936.	0.	0.	0.	4	24166.	58061.	2.4026	33895.
1991	662.	662.	3281.	1586.	5	22040.	48237.	2.1879	26189.
1992	662.	662.	3350.	1586.	6	20292.	40486.	1.9952	20194.
1993	662.	662.	3419.	1586.	7	18817.	34303.	1.8230	15486.
1994	662.	662.	3490.	1586.	8	17561.	29320.	1.6696	11759.
1995	662.	662.	3561.	1586.	9	16475.	25264.	1.5331	8785.
1996	662.	662.	3634.	1586.	10	15536.	21930.	1.4116	6394.
1997	662.	662.	3707.	1586.	11	14706.	19165.	1.3032	4439.
1998	662.	662.	3781.	1586.	12	13968.	16853.	1.2065	2885.
1999	662.	662.	3830.	1586.	13	13307.	14903.	1.1199	1596.
2000	662.	662.	3830.	1586.	14	12710.	13247.	1.0422	536.
2001	662.	662.	3830.	1586.	15	12188.	11830.	.9722	-338.
2002	662.	662.	3830.	1586.	16	11672.	10610.	.9090	-1062.
2003	662.	662.	3830.	1586.	17	11216.	9534.	.8518	-1662.
2004	662.	662.	3830.	1586.	18	10795.	8634.	.7998	-2161.
2005	662.	662.	3830.	1586.	19	10404.	7828.	.7524	-2577.
2006	662.	662.	3830.	1586.	20	10041.	7119.	.7090	-2922.
2007	662.	662.	3830.	1586.	21	9701.	6493.	.6693	-3208.
2008	662.	662.	3830.	1586.	22	9383.	5937.	.6328	-3446.
2009	662.	662.	3830.	1586.	23	9084.	5442.	.5991	-3642.
2010	662.	662.	3830.	1586.	24	8802.	5000.	.5680	-3802.
2011	662.	662.	3830.	1586.	25	8536.	4603.	.5392	-3933.
2012	662.	662.	3830.	1586.	26	8285.	4246.	.5125	-4039.
2013	662.	662.	3830.	1586.	27	8046.	3974.	.4876	-4123.
2014	662.	662.	3830.	1586.	28	7820.	3632.	.4645	-4188.
2015	662.	662.	3830.	1586.	29	7605.	3368.	.4429	-4237.
2016	662.	662.	3830.	1586.	30	7401.	3128.	.4227	-4273.
2017	662.	662.	3830.	1586.					
2018	662.	662.	3830.	1586.					
2019	662.	662.	3830.	1586.					
2020	662.	662.	3830.	1586.					
2021	662.	662.	3830.	1586.					
2022	662.	662.	3830.	1586.					
2023	662.	662.	3830.	1586.					
2024	662.	662.	3830.	1586.					
2025	662.	662.	3830.	1586.					

INTERNAL RATE OF RETURN 14.61 PER CENT

ALI-5 (E)

ALI-5

**** PRIMARY PROFIT (WITH PROJECT) ****

**** PRIMARY PROFIT (WITH PROJECT) ****

DRY SEASON PADDY

WET SEASON PADDY

AX-4-14

YEAR	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARY. AREA HA	NET PROFIT 10**6 RP	YEAR	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARY. AREA HA	NET PROFIT 10**6 RP
1991	4.453	.135	.601	.150	.451	4500.000	2030.395	1991	4.119	.135	.556	.150	.406	6750.100	2741.277
1992	4.507	.135	.608	.150	.458	4500.000	2062.860	1992	4.169	.135	.563	.150	.413	6750.100	2786.322
1993	4.361	.135	.616	.150	.466	4500.000	2095.715	1993	4.219	.135	.570	.150	.420	6750.100	2831.908
1994	4.616	.135	.623	.150	.473	4500.000	2128.763	1994	4.269	.135	.576	.150	.426	6750.100	2878.041
1995	4.671	.135	.631	.150	.481	4500.000	2162.610	1995	4.321	.135	.583	.150	.433	6750.100	2924.228
1996	4.727	.135	.638	.150	.488	4500.000	2196.661	1996	4.372	.135	.590	.150	.440	6750.100	2971.974
1997	4.784	.135	.646	.150	.496	4500.000	2231.121	1997	4.425	.135	.597	.150	.447	6750.100	3019.288
1998	4.841	.135	.654	.150	.504	4500.000	2265.995	1998	4.478	.135	.605	.150	.455	6750.100	3068.176
1999	4.899	.135	.661	.150	.511	4500.000	2301.287	1999	4.500	.135	.608	.150	.458	6750.100	3088.171
2000	4.900	.135	.662	.150	.512	4500.000	2301.750	2000	4.500	.135	.608	.150	.458	6750.100	3088.171
2001	4.900	.135	.662	.150	.512	4500.000	2301.750	2001	4.500	.135	.608	.150	.458	6750.100	3088.171
2002	4.900	.135	.662	.150	.512	4500.000	2301.750	2002	4.500	.135	.608	.150	.458	6750.100	3088.171
2003	4.900	.135	.662	.150	.512	4500.000	2301.750	2003	4.500	.135	.608	.150	.458	6750.100	3088.171
2004	4.900	.135	.662	.150	.512	4500.000	2301.750	2004	4.500	.135	.608	.150	.458	6750.100	3088.171
2005	4.900	.135	.662	.150	.512	4500.000	2301.750	2005	4.500	.135	.608	.150	.458	6750.100	3088.171
2006	4.900	.135	.662	.150	.512	4500.000	2301.750	2006	4.500	.135	.608	.150	.458	6750.100	3088.171
2007	4.900	.135	.662	.150	.512	4500.000	2301.750	2007	4.500	.135	.608	.150	.458	6750.100	3088.171
2008	4.900	.135	.662	.150	.512	4500.000	2301.750	2008	4.500	.135	.608	.150	.458	6750.100	3088.171
2009	4.900	.135	.662	.150	.512	4500.000	2301.750	2009	4.500	.135	.608	.150	.458	6750.100	3088.171
2010	4.900	.135	.662	.150	.512	4500.000	2301.750	2010	4.500	.135	.608	.150	.458	6750.100	3088.171
2011	4.900	.135	.662	.150	.512	4500.000	2301.750	2011	4.500	.135	.608	.150	.458	6750.100	3088.171
2012	4.900	.135	.662	.150	.512	4500.000	2301.750	2012	4.500	.135	.608	.150	.458	6750.100	3088.171
2013	4.900	.135	.662	.150	.512	4500.000	2301.750	2013	4.500	.135	.608	.150	.458	6750.100	3088.171
2014	4.900	.135	.662	.150	.512	4500.000	2301.750	2014	4.500	.135	.608	.150	.458	6750.100	3088.171
2015	4.900	.135	.662	.150	.512	4500.000	2301.750	2015	4.500	.135	.608	.150	.458	6750.100	3088.171
2016	4.900	.135	.662	.150	.512	4500.000	2301.750	2016	4.500	.135	.608	.150	.458	6750.100	3088.171
2017	4.900	.135	.662	.150	.512	4500.000	2301.750	2017	4.500	.135	.608	.150	.458	6750.100	3088.171
2018	4.900	.135	.662	.150	.512	4500.000	2301.750	2018	4.500	.135	.608	.150	.458	6750.100	3088.171
2019	4.900	.135	.662	.150	.512	4500.000	2301.750	2019	4.500	.135	.608	.150	.458	6750.100	3088.171
2020	4.900	.135	.662	.150	.512	4500.000	2301.750	2020	4.500	.135	.608	.150	.458	6750.100	3088.171
2021	4.900	.135	.662	.150	.512	4500.000	2301.750	2021	4.500	.135	.608	.150	.458	6750.100	3088.171
2022	4.900	.135	.662	.150	.512	4500.000	2301.750	2022	4.500	.135	.608	.150	.458	6750.100	3088.171
2023	4.900	.135	.662	.150	.512	4500.000	2301.750	2023	4.500	.135	.608	.150	.458	6750.100	3088.171
2024	4.900	.135	.662	.150	.512	4500.000	2301.750	2024	4.500	.135	.608	.150	.458	6750.100	3088.171
2025	4.900	.135	.662	.150	.512	4500.000	2301.750	2025	4.500	.135	.608	.150	.458	6750.100	3088.171

ALT-5

***** PRIMARY PROFIT (WITH PROJECT) *****

PORONJO WET SEASON PADDY

	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
MAIZE	.800	.120	.086	.030	.066	2250.100	148.507	1991	4.119	.135	.556	.150	.406	.000
								1992	4.169	.135	.583	.150	.413	.000
								1993	4.219	.135	.570	.150	.420	.000
								1994	4.269	.135	.576	.150	.426	.000
								1995	4.321	.135	.583	.150	.433	.000
								1996	4.372	.135	.590	.150	.440	.000
								1997	4.425	.135	.597	.150	.447	.000
								1998	4.478	.135	.605	.150	.455	.000
								1999	4.500	.135	.608	.150	.458	.000
								2000	4.500	.135	.608	.150	.458	.000
								2001	4.500	.135	.608	.150	.458	.000
								2002	4.500	.135	.608	.150	.458	.000
								2003	4.500	.135	.608	.150	.458	.000
								2004	4.500	.135	.608	.150	.458	.000
								2005	4.500	.135	.608	.150	.458	.000
								2006	4.500	.135	.608	.150	.458	.000
								2007	4.500	.135	.608	.150	.458	.000
								2008	4.500	.135	.608	.150	.458	.000
								2009	4.500	.135	.608	.150	.458	.000
								2010	4.500	.135	.608	.150	.458	.000
								2011	4.500	.135	.608	.150	.458	.000
								2012	4.500	.135	.608	.150	.458	.000
								2013	4.500	.135	.608	.150	.458	.000
								2014	4.500	.135	.608	.150	.458	.000
								2015	4.500	.135	.608	.150	.458	.000
								2016	4.500	.135	.608	.150	.458	.000
								2017	4.500	.135	.608	.150	.458	.000
								2018	4.500	.135	.608	.150	.458	.000
								2019	4.500	.135	.608	.150	.458	.000
								2020	4.500	.135	.608	.150	.458	.000
								2021	4.500	.135	.608	.150	.458	.000
								2022	4.500	.135	.608	.150	.458	.000
								2023	4.500	.135	.608	.150	.458	.000
								2024	4.500	.135	.608	.150	.458	.000
								2025	4.500	.135	.608	.150	.458	.000

ALT-5

***** PRIMARY PROFIT (WITH PROJECT) *****

PORONJO

	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
UPLAND RICE	1.400	.185	.189	.090	.099	.000	.000
SUGAR CANE	80.000	.015	1.200	.420	.780	425.200	331.656
MAIZE	.800	.120	.096	.030	.066	5285.300	348.630
SOY BEAN	.920	.300	.276	.070	.206	2471.400	509.108
CASSAVA	9.700	.045	.437	.050	.387	1532.600	592.350

***** ALI-5 *****

***** ALI-5 *****

***** ALI-5 *****

YEAR	COST		BENEFIT		WITH	WITHOUT	POWER GEN.	DISCOUNT RATE	ACCUR. DISCOUNTED COST	ACCUR. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	BENEFIT SALVAGE V.								
1986	3934.	0.	0.	0.	0.	0.	0.	0	71869.	155255.	2.1602	83986.
1987	3934.	0.	0.	0.	0.	0.	0.	1	61989.	127722.	1.9798	60734.
1988	4982.	0.	0.	0.	0.	0.	0.	2	54909.	98265.	1.8096	45952.
1989	7074.	0.	0.	0.	0.	0.	0.	3	48257.	79663.	1.6515	31456.
1990	7074.	0.	0.	0.	0.	0.	0.	4	43878.	65349.	1.5065	21971.
1991	0.	1282.	3657.	0.	4970.	1782.	519.	5	39429.	54207.	1.3748	14777.
1992	1282.	1282.	3734.	0.	4998.	1782.	519.	6	36175.	45435.	1.2560	9261.
1993	1282.	1282.	3813.	0.	5076.	1782.	519.	7	33455.	36484.	1.1494	4998.
1994	1282.	1282.	3892.	0.	5156.	1782.	519.	8	31154.	32837.	1.0540	1839.
1995	1282.	1282.	3973.	0.	5236.	1782.	519.	9	29182.	28271.	.9688	-909.
1996	1282.	1282.	4054.	0.	5317.	1782.	519.	10	27472.	24526.	.8928	-2946.
1997	1282.	1282.	4136.	0.	5399.	1782.	519.	11	25976.	21423.	.8247	-4553.
1998	1282.	1282.	4219.	0.	5483.	1782.	519.	12	24652.	18830.	.7638	-5822.
1999	1282.	1282.	4275.	0.	5568.	1782.	519.	13	23472.	16646.	.7092	-6926.
2000	1282.	1282.	4275.	0.	5588.	1782.	519.	14	22411.	14792.	.6600	-7619.
2001	1282.	1282.	4275.	0.	5588.	1782.	519.	15	21451.	13207.	.6157	-8244.
2002	1282.	1282.	4275.	0.	5588.	1782.	519.	16	20576.	11843.	.5756	-8733.
2003	1282.	1282.	4275.	0.	5588.	1782.	519.	17	19775.	10662.	.5392	-9112.
2004	1282.	1282.	4275.	0.	5588.	1782.	519.	18	19097.	9634.	.5061	-9403.
2005	1282.	1282.	4275.	0.	5588.	1782.	519.	19	18554.	8734.	.4759	-9620.
2006	1282.	1282.	4275.	0.	5588.	1782.	519.	20	17720.	7942.	.4482	-9778.
2007	1282.	1282.	4275.	0.	5588.	1782.	519.	21	17129.	7249.	.4229	-9886.
2008	1282.	1282.	4275.	0.	5588.	1782.	519.	22	16577.	6623.	.3995	-9954.
2009	1282.	1282.	4275.	0.	5588.	1782.	519.	23	16098.	6070.	.3780	-9988.
2010	1282.	1282.	4275.	0.	5588.	1782.	519.	24	15571.	5577.	.3581	-9994.
2011	1282.	1282.	4275.	0.	5588.	1782.	519.	25	15111.	5134.	.3397	-9978.
2012	1282.	1282.	4275.	0.	5588.	1782.	519.	26	14677.	4736.	.3226	-9942.
2013	1282.	1282.	4275.	0.	5588.	1782.	519.	27	14267.	4376.	.3068	-9890.
2014	1282.	1282.	4275.	0.	5588.	1782.	519.	28	13877.	4051.	.2919	-9826.
2015	1282.	1282.	4275.	0.	5588.	1782.	519.	29	13507.	3757.	.2781	-9750.
2016	1282.	1282.	4275.	0.	5588.	1782.	519.	30	13155.	3489.	.2652	-9666.
2017	1282.	1282.	4275.	0.	5588.	1782.	519.					
2018	1282.	1282.	4275.	0.	5588.	1782.	519.					
2019	1282.	1282.	4275.	0.	5588.	1782.	519.					
2020	1282.	1282.	4275.	0.	5588.	1782.	519.					
2021	1282.	1282.	4275.	0.	5588.	1782.	519.					
2022	1282.	1282.	4275.	0.	5588.	1782.	519.					
2023	1282.	1282.	4275.	0.	5588.	1782.	519.					
2024	1282.	1282.	4275.	0.	5588.	1782.	519.					
2025	1282.	1282.	4275.	8947.	5588.	1782.	519.					

INTERNAL RATE OF RETURN 8.65 PER CENT

ALT-6

***** PRIMARY PROFIT (WITH PROJECT) *****

WET SEASON PADDY

YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
1991	4.453	.135	.601	.150	4500.000	2030.395	1991	.135	.556	.150	.406	6750.100	2741.277
1992	4.507	.135	.608	.150	4500.000	2062.850	1992	.135	.563	.150	.413	6750.100	2786.322
1993	4.561	.135	.616	.150	4500.000	2095.715	1993	.135	.570	.150	.420	6750.100	2831.368
1994	4.615	.135	.623	.150	4500.000	2128.963	1994	.135	.576	.150	.426	6750.100	2876.041
1995	4.671	.135	.631	.150	4500.000	2162.610	1995	.135	.583	.150	.433	6750.100	2924.728
1996	4.727	.135	.638	.150	4500.000	2196.661	1996	.135	.590	.150	.440	6750.100	2971.974
1997	4.784	.135	.646	.150	4500.000	2231.121	1997	.135	.597	.150	.447	6750.100	3019.788
1998	4.841	.135	.654	.150	4500.000	2265.995	1998	.135	.605	.150	.455	6750.100	3068.176
1999	4.899	.135	.661	.150	4500.000	2301.287	1999	.135	.608	.150	.458	6750.100	3088.171
2000	4.900	.135	.662	.150	4500.000	2301.750	2000	.135	.608	.150	.458	6750.100	3088.171
2001	4.900	.135	.662	.150	4500.000	2301.750	2001	.135	.608	.150	.458	6750.100	3088.171
2002	4.900	.135	.662	.150	4500.000	2301.750	2002	.135	.608	.150	.458	6750.100	3088.171
2003	4.900	.135	.662	.150	4500.000	2301.750	2003	.135	.608	.150	.458	6750.100	3088.171
2004	4.900	.135	.662	.150	4500.000	2301.750	2004	.135	.608	.150	.458	6750.100	3088.171
2005	4.900	.135	.662	.150	4500.000	2301.750	2005	.135	.608	.150	.458	6750.100	3088.171
2006	4.900	.135	.662	.150	4500.000	2301.750	2006	.135	.608	.150	.458	6750.100	3088.171
2007	4.900	.135	.662	.150	4500.000	2301.750	2007	.135	.608	.150	.458	6750.100	3088.171
2008	4.900	.135	.662	.150	4500.000	2301.750	2008	.135	.608	.150	.458	6750.100	3088.171
2009	4.900	.135	.662	.150	4500.000	2301.750	2009	.135	.608	.150	.458	6750.100	3088.171
2010	4.900	.135	.662	.150	4500.000	2301.750	2010	.135	.608	.150	.458	6750.100	3088.171
2011	4.900	.135	.662	.150	4500.000	2301.750	2011	.135	.608	.150	.458	6750.100	3088.171
2012	4.900	.135	.662	.150	4500.000	2301.750	2012	.135	.608	.150	.458	6750.100	3088.171
2013	4.900	.135	.662	.150	4500.000	2301.750	2013	.135	.608	.150	.458	6750.100	3088.171
2014	4.900	.135	.662	.150	4500.000	2301.750	2014	.135	.608	.150	.458	6750.100	3088.171
2015	4.900	.135	.662	.150	4500.000	2301.750	2015	.135	.608	.150	.458	6750.100	3088.171
2016	4.900	.135	.662	.150	4500.000	2301.750	2016	.135	.608	.150	.458	6750.100	3088.171
2017	4.900	.135	.662	.150	4500.000	2301.750	2017	.135	.608	.150	.458	6750.100	3088.171
2018	4.900	.135	.662	.150	4500.000	2301.750	2018	.135	.608	.150	.458	6750.100	3088.171
2019	4.900	.135	.662	.150	4500.000	2301.750	2019	.135	.608	.150	.458	6750.100	3088.171
2020	4.900	.135	.662	.150	4500.000	2301.750	2020	.135	.608	.150	.458	6750.100	3088.171
2021	4.900	.135	.662	.150	4500.000	2301.750	2021	.135	.608	.150	.458	6750.100	3088.171
2022	4.900	.135	.662	.150	4500.000	2301.750	2022	.135	.608	.150	.458	6750.100	3088.171
2023	4.900	.135	.662	.150	4500.000	2301.750	2023	.135	.608	.150	.458	6750.100	3088.171
2024	4.900	.135	.662	.150	4500.000	2301.750	2024	.135	.608	.150	.458	6750.100	3088.171
2025	4.900	.135	.662	.150	4500.000	2301.750	2025	.135	.608	.150	.458	6750.100	3088.171

***** PRIMARY PROFIT (WITH PROJECT) *****

DRY SEASON PADDY

ALT-6 (CF)

ALT-6

***** PRIMARY PROFIT (WITH PROJECT) *****

POROWIJO

***** PRIMARY PROFIT (WITHOUT PROJECT) *****

	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
MALZE	.800	.120	.096	.030	.066	2250.100	148.507

YEAR	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
1991	4.119	.135	.556	.150	.406	.000	.000
1992	4.169	.135	.563	.150	.413	.000	.000
1993	4.219	.135	.570	.150	.420	.000	.000
1994	4.269	.135	.576	.150	.426	.000	.000
1995	4.321	.135	.583	.150	.433	.000	.000
1996	4.372	.135	.590	.150	.440	.000	.000
1997	4.425	.135	.597	.150	.447	.000	.000
1998	4.478	.135	.605	.150	.455	.000	.000
1999	4.500	.135	.608	.150	.458	.000	.000
2000	4.500	.135	.608	.150	.458	.000	.000
2001	4.500	.135	.608	.150	.458	.000	.000
2002	4.500	.135	.608	.150	.458	.000	.000
2003	4.500	.135	.608	.150	.458	.000	.000
2004	4.500	.135	.608	.150	.458	.000	.000
2005	4.500	.135	.608	.150	.458	.000	.000
2006	4.500	.135	.608	.150	.458	.000	.000
2007	4.500	.135	.608	.150	.458	.000	.000
2008	4.500	.135	.608	.150	.458	.000	.000
2009	4.500	.135	.608	.150	.458	.000	.000
2010	4.500	.135	.608	.150	.458	.000	.000
2011	4.500	.135	.608	.150	.458	.000	.000
2012	4.500	.135	.608	.150	.458	.000	.000
2013	4.500	.135	.608	.150	.458	.000	.000
2014	4.500	.135	.608	.150	.458	.000	.000
2015	4.500	.135	.608	.150	.458	.000	.000
2016	4.500	.135	.608	.150	.458	.000	.000
2017	4.500	.135	.608	.150	.458	.000	.000
2018	4.500	.135	.608	.150	.458	.000	.000
2019	4.500	.135	.608	.150	.458	.000	.000
2020	4.500	.135	.608	.150	.458	.000	.000
2021	4.500	.135	.608	.150	.458	.000	.000
2022	4.500	.135	.608	.150	.458	.000	.000
2023	4.500	.135	.608	.150	.458	.000	.000
2024	4.500	.135	.608	.150	.458	.000	.000
2025	4.500	.135	.608	.150	.458	.000	.000

	YIELD TON/HA	UNIT PRICE 10**6 RP/TON	GROSS PROFIT 10**6 RP/HA	INPUT COST 10**6 RP/HA	NET PROFIT 10**6 RP/HA	HARV. AREA HA	NET PROFIT 10**6 RP
UPLAND RICE	1.400	.185	.189	.090	.099	.000	.000
SUGAR CANE	80.000	.015	1.200	.420	.780	425.200	331.656
MALZE	.800	.120	.096	.030	.066	5285.300	348.930
SOY BEAN	.920	.300	.276	.070	.206	2471.400	509.108
CASSAVA	9.700	.045	.437	.050	.387	1532.600	592.350

AX-4-18

ALT-6

***** PRIMARY PROFIT (WITHOUT PROJECT) *****

POROWIJO

**** ALI-6 *****

**** ALI-6 *****

YEAR	COST		BENEFIT			DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	BENEFIT	SALVAGE V.					
1986	2064.	0.	0.	0.	0.	0	6057.	152449.	2.5175	91892.
1987	2064.	0.	0.	0.	0.	1	51344.	170838.	2.3535	68494.
1988	3111.	0.	0.	0.	0.	2	44219.	96994.	2.1935	52775.
1989	5304.	0.	0.	0.	0.	3	36533.	76803.	2.0398	40170.
1990	5304.	0.	0.	0.	0.	4	34192.	64764.	1.8941	30572.
1991	1226.	1226.	3657.	0.	0.	5	30613.	53808.	1.7577	23195.
1992	1226.	1226.	3734.	0.	0.	6	27689.	45163.	1.6311	17473.
1993	1226.	1226.	3813.	0.	0.	7	25270.	38266.	1.5143	12997.
1994	1228.	1228.	3892.	0.	0.	8	23242.	32708.	1.4073	9455.
1995	1226.	1226.	3973.	0.	0.	9	21522.	28183.	1.3095	6661.
1996	1226.	1226.	4054.	0.	0.	10	20047.	24464.	1.2204	4417.
1997	1226.	1226.	4136.	0.	0.	11	18769.	21380.	1.1391	2511.
1998	1226.	1226.	4219.	0.	0.	12	17650.	18800.	1.0651	1150.
1999	1226.	1226.	4275.	0.	0.	13	16663.	16625.	.9977	-38.
2000	1226.	1226.	4275.	0.	0.	14	15784.	14777.	.9362	-1007.
2001	1226.	1226.	4275.	0.	0.	15	14997.	13196.	.8800	-1800.
2002	1226.	1226.	4275.	0.	0.	16	14286.	11836.	.8285	-2450.
2003	1226.	1226.	4275.	0.	0.	17	13641.	10657.	.7812	-2984.
2004	1226.	1226.	4275.	0.	0.	18	13052.	9630.	.7378	-3422.
2005	1226.	1226.	4275.	0.	0.	19	12512.	8731.	.6978	-3780.
2006	1228.	1228.	4275.	0.	0.	20	12014.	7941.	.6609	-4073.
2007	1226.	1226.	4275.	0.	0.	21	11554.	7242.	.6268	-4312.
2008	1226.	1226.	4275.	0.	0.	22	11126.	6622.	.5952	-4504.
2009	1226.	1226.	4275.	0.	0.	23	10728.	6070.	.5658	-4639.
2010	1226.	1226.	4275.	0.	0.	24	10356.	5576.	.5384	-4750.
2011	1226.	1226.	4275.	0.	0.	25	10008.	5133.	.5129	-4875.
2012	1226.	1226.	4275.	0.	0.	26	9681.	4735.	.4891	-4946.
2013	1226.	1226.	4275.	0.	0.	27	9373.	4376.	.4689	-4997.
2014	1226.	1226.	4275.	0.	0.	28	9083.	4051.	.4450	-5052.
2015	1226.	1226.	4275.	0.	0.	29	8809.	3757.	.4265	-5052.
2016	1226.	1226.	4275.	0.	0.	30	8549.	3489.	.4081	-5061.
2017	1226.	1226.	4275.	0.	0.					
2018	1226.	1226.	4275.	0.	0.					
2019	1226.	1226.	4275.	0.	0.					
2020	1226.	1226.	4275.	0.	0.					
2021	1226.	1226.	4275.	0.	0.					
2022	1226.	1226.	4275.	0.	0.					
2023	1226.	1226.	4275.	0.	0.					
2024	1226.	1226.	4275.	0.	0.					
2025	1226.	1226.	4275.	0.	0.					

INTERNAL RATE OF RETURN 12.97 PER CENT

**** ALI-3 ***** ALI-3 ***** (A) Combined Project ***** ALI-3 *****

YEAR	COST		BENEFIT			DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	DIRECT	INDIRECT					
1987	8915.0	.0	.0	.0	.0	0	50979.	184599.	3.6211	133620.
1988	8914.0	.0	.0	.0	.0	1	48356.	145905.	3.0173	97549.
1989	8914.0	.0	.0	.0	.0	2	46110.	116865.	2.5545	70755.
1990	10001.0	36.0	794.8	793.0	1.8	3	44154.	94813.	2.1473	50659.
1991	7550.0	36.0	1001.0	998.8	2.2	4	42423.	77868.	1.8855	35445.
1992	191.0	.0	4330.8	1445.6	3.2	5	40870.	64694.	1.5829	23824.
1993	191.0	.0	4378.1	1631.8	3.2	6	39461.	54333.	1.3769	14872.
1994	191.0	.0	4448.5	1441.2	3.3	7	38170.	46092.	1.2075	7922.
1995	191.0	.0	4519.1	1650.8	3.3	8	36978.	39466.	1.0673	2488.
1996	191.0	.0	4591.9	1460.5	3.4	9	35869.	34081.	.9502	-1788.
1997	191.0	.0	4664.8	1470.4	3.4	10	34831.	29661.	.8516	-5170.
1998	191.0	.0	4738.8	1480.4	3.4	11	33856.	25999.	.7679	-7858.
1999	191.0	.0	4814.1	1490.6	3.5	12	32937.	22937.	.6964	-10000.
2000	191.0	.0	4867.5	1501.0	3.5	13	32066.	20355.	.6348	-11712.
2001	191.0	.0	4878.1	1511.5	3.6	14	31240.	18160.	.5813	-13060.
2002	191.0	.0	4888.8	1522.2	3.6	15	30454.	16382.	.5346	-14172.
2003	191.0	.0	4899.8	1533.1	3.6	16	29704.	14662.	.4936	-15042.
2004	191.0	.0	4910.9	1544.2	3.7	17	28988.	13258.	.4574	-15730.
2005	191.0	.0	4922.2	1555.5	3.7	18	28303.	12032.	.4251	-16271.
2006	191.0	.0	4933.7	1567.0	3.8	19	27647.	10958.	.3963	-16690.
2007	191.0	.0	4945.5	1578.6	3.8	20	27018.	10010.	.3705	-17008.
2008	191.0	.0	4957.4	1590.5	3.9	21	26414.	9171.	.3472	-17244.
2009	191.0	.0	4969.5	1602.6	3.9	22	25834.	8424.	.3261	-17410.
2010	191.0	.0	4981.9	1614.9	4.0	23	25276.	7758.	.3069	-17519.
2011	191.0	.0	4994.4	1627.4	4.0	24	24739.	7160.	.2894	-17579.
2012	191.0	.0	5007.2	1640.2	4.0	25	24222.	6623.	.2734	-17599.
2013	191.0	.0	5020.3	1653.2	4.1	26	23723.	6138.	.2587	-17585.
2014	191.0	.0	5033.5	1666.4	4.1	27	23242.	5700.	.2452	-17542.
2015	191.0	.0	5047.0	1679.8	4.2	28	22778.	5302.	.2328	-17476.
2016	191.0	.0	5060.8	1693.5	4.2	29	22329.	4940.	.2212	-17389.
2017	191.0	.0	5074.8	1707.5	4.3	30	21896.	4610.	.2105	-17286.
2018	191.0	.0	5089.0	1721.7	4.3					
2019	191.0	.0	5103.6	1736.2	4.4					
2020	191.0	.0	5118.4	1750.9	4.4					
2021	191.0	.0	5133.4	1765.9	4.5					
2022	191.0	.0	5148.8	1781.3	4.5					
2023	191.0	.0	5164.4	1796.9	4.6					
2024	191.0	.0	5180.4	1812.8	4.7					
2025	191.0	.0	5196.7	1829.0	4.7					
2026	191.0	.0	15789.3	1845.5	4.8					
										10576.1

INTERNAL RATE OF RETURN 8.58 PER CENT

**** ALT-3 *****

**** ALT-3 ***** (B)

**** ALT-3 *****

YEAR	COST		BENEFIT				IRRIG.	SALVAGE V.	DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	DIRECT	INDIRECT								
1987	7045.0	7045.0	.0	.0	.0	.0	.0	0	39669.	184599.	4.6535	144930.	
1988	7044.0	7044.0	.0	.0	.0	.0	.0	1	37713.	145905.	3.8688	108192.	
1989	7044.0	7044.0	.0	.0	.0	.0	.0	2	36028.	116865.	3.2437	80837.	
1990	8131.0	8095.0	36.0	793.0	1.8	.0	.0	3	34552.	94813.	2.7441	60261.	
1991	5680.0	5644.0	.0	998.8	2.2	.0	.0	4	33239.	77868.	2.3427	44629.	
1992	135.0	.0	135.0	1445.6	3.2	2882.0	.0	5	32055.	64694.	2.0182	32638.	
1993	135.0	.0	135.0	1431.8	3.2	2943.0	.0	6	30777.	54333.	1.7540	23556.	
1994	135.0	.0	135.0	1441.2	3.3	3004.0	.0	7	29986.	46092.	1.5371	16106.	
1995	135.0	.0	135.0	1450.8	3.3	3065.0	.0	8	29067.	39466.	1.3577	10398.	
1996	135.0	.0	135.0	1460.5	3.4	3128.0	.0	9	28210.	34081.	1.2081	5871.	
1997	135.0	.0	135.0	1470.4	3.4	3191.0	.0	10	27407.	29661.	1.0822	2254.	
1998	135.0	.0	135.0	1480.4	3.4	3255.0	.0	11	26651.	25999.	.9755	-632.	
1999	135.0	.0	135.0	1490.6	3.5	3320.0	.0	12	25936.	22937.	.8844	-2999.	
2000	135.0	.0	135.0	1501.0	3.5	3383.0	.0	13	25258.	20555.	.8059	-4904.	
2001	135.0	.0	135.0	1511.5	3.5	3443.0	.0	14	24614.	18160.	.7378	-6454.	
2002	135.0	.0	135.0	1522.2	3.6	3503.0	.0	15	24001.	16282.	.6784	-7719.	
2003	135.0	.0	135.0	1533.1	3.6	3563.0	.0	16	23415.	14662.	.6262	-8753.	
2004	135.0	.0	135.0	1544.2	3.7	3623.0	.0	17	22856.	13258.	.5801	-9598.	
2005	135.0	.0	135.0	1555.3	3.7	3683.0	.0	18	22320.	12032.	.5391	-10287.	
2006	135.0	.0	135.0	1567.0	3.8	3743.0	.0	19	21806.	10958.	.5025	-10849.	
2007	135.0	.0	135.0	1578.6	3.8	3803.0	.0	20	21314.	10010.	.4696	-11304.	
2008	135.0	.0	135.0	1590.5	3.9	3863.0	.0	21	20840.	9171.	.4400	-11670.	
2009	135.0	.0	135.0	1602.6	3.9	3923.0	.0	22	20385.	8424.	.4133	-11961.	
2010	135.0	.0	135.0	1614.9	4.0	3983.0	.0	23	19947.	7758.	.3889	-12190.	
2011	135.0	.0	135.0	1627.4	4.0	4043.0	.0	24	19526.	7160.	.3667	-12365.	
2012	135.0	.0	135.0	1640.2	4.0	4103.0	.0	25	19119.	6623.	.3464	-12496.	
2013	135.0	.0	135.0	1653.2	4.1	4163.0	.0	26	18727.	6138.	.3278	-12589.	
2014	135.0	.0	135.0	1666.4	4.1	4223.0	.0	27	18349.	5700.	.3106	-12650.	
2015	135.0	.0	135.0	1679.8	4.2	4283.0	.0	28	17984.	5302.	.2948	-12683.	
2016	135.0	.0	135.0	1693.5	4.2	4343.0	.0	29	17632.	4940.	.2802	-12692.	
2017	135.0	.0	135.0	1707.5	4.3	4403.0	.0	30	17291.	4610.	.2666	-12682.	
2018	135.0	.0	135.0	1721.7	4.3	4463.0	.0						
2019	135.0	.0	135.0	1736.2	4.4	4523.0	.0						
2020	135.0	.0	135.0	1750.9	4.4	4583.0	.0						
2021	135.0	.0	135.0	1765.9	4.5	4643.0	.0						
2022	135.0	.0	135.0	1781.3	4.5	4703.0	.0						
2023	135.0	.0	135.0	1796.9	4.6	4763.0	.0						
2024	135.0	.0	135.0	1812.8	4.7	4823.0	.0						
2025	135.0	.0	135.0	1829.0	4.7	4883.0	.0						
2026	135.0	.0	135.0	1845.5	4.8	4943.0	10576.1						

INTERNAL RATE OF RETURN 10.78 PER CENT

**** ALT-3 ***** (C) **** ALT-3 *****

YEAR	COST			BENEFIT			DISCOUNT RATE	ACCUA. DISCOUNTED COST	ACCUA. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION	MAINTENANCE	TOTAL	DIRECT	INDIRECT					
1987	8915.0	8915.0	.0	.0	.0	.0	0	72268.	200643.	2.7764	128375.
1988	8914.0	8914.0	.0	.0	.0	.0	1	65624.	158695.	2.4182	99071.
1989	8914.0	8914.0	.0	.0	.0	.0	2	60307.	127163.	2.1089	66876.
1990	10793.0	10757.0	36.0	794.8	793.0	1.8	3	55976.	103232.	1.8442	47256.
1991	8342.0	8306.0	36.0	998.8	998.8	2.2	4	52888.	84813.	1.6190	32426.
1992	754.0	.0	754.0	1445.6	1445.6	3.2	5	49365.	70483.	1.4278	21118.
1993	754.0	.0	754.0	1431.8	1431.8	3.2	6	46780.	59205.	1.2656	12425.
1994	754.0	.0	754.0	1441.2	1441.2	3.3	7	44536.	50229.	1.1278	5693.
1995	754.0	.0	754.0	1450.8	1450.8	3.3	8	42564.	43009.	.9100	444.
1996	754.0	.0	754.0	1460.5	1460.5	3.4	9	40811.	37138.	.8237	-3673.
1997	754.0	.0	754.0	1470.4	1470.4	3.4	10	39235.	32318.	.7492	-9484.
1998	754.0	.0	754.0	1480.4	1480.4	3.4	11	37807.	28323.	.6844	-11519.
1999	754.0	.0	754.0	1490.6	1490.6	3.5	12	36501.	24982.	.6279	-13135.
2000	754.0	.0	754.0	1501.0	1501.0	3.5	13	35300.	22165.	.5783	-14418.
2001	754.0	.0	754.0	1511.5	1511.5	3.6	14	34187.	19770.	.5345	-15433.
2002	754.0	.0	754.0	1522.2	1522.2	3.6	15	33152.	17720.	.4957	-16232.
2003	754.0	.0	754.0	1533.1	1533.1	3.6	16	32185.	15953.	.4610	-16857.
2004	754.0	.0	754.0	1544.2	1544.2	3.7	17	31276.	14420.	.4301	-17398.
2005	754.0	.0	754.0	1555.5	1555.5	3.7	18	30421.	13083.	.4022	-17703.
2006	754.0	.0	754.0	1567.0	1567.0	3.8	19	29613.	11910.	.3770	-17972.
2007	754.0	.0	754.0	1578.6	1578.6	3.8	20	28848.	10876.	.3542	-18161.
2008	754.0	.0	754.0	1590.5	1590.5	3.9	21	28122.	9961.	.3334	-18284.
2009	754.0	.0	754.0	1602.6	1602.6	3.9	22	27431.	9146.	.3145	-18353.
2010	754.0	.0	754.0	1614.9	1614.9	4.0	23	26772.	8420.	.2971	-18375.
2011	754.0	.0	754.0	1627.4	1627.4	4.0	24	26144.	7768.	.2812	-18340.
2012	754.0	.0	754.0	1640.2	1640.2	4.0	25	25543.	7183.	.2665	-18313.
2013	754.0	.0	754.0	1653.2	1653.2	4.1	26	24968.	6655.	.2530	-18240.
2014	754.0	.0	754.0	1666.4	1666.4	4.1	27	24417.	6177.	.2404	-18145.
2015	754.0	.0	754.0	1679.8	1679.8	4.2	28	23888.	5744.	.2288	-18031.
2016	754.0	.0	754.0	1693.5	1693.5	4.2	29	23380.	5350.	.2180	-17902.
2017	754.0	.0	754.0	1707.5	1707.5	4.3	30	22892.	4990.		
2018	754.0	.0	754.0	1721.7	1721.7	4.3					
2019	754.0	.0	754.0	1736.2	1736.2	4.4					
2020	754.0	.0	754.0	1750.9	1750.9	4.4					
2021	754.0	.0	754.0	1765.9	1765.9	4.5					
2022	754.0	.0	754.0	1781.3	1781.3	4.5					
2023	754.0	.0	754.0	1796.9	1796.9	4.6					
2024	754.0	.0	754.0	1812.8	1812.8	4.7					
2025	754.0	.0	754.0	1829.0	1829.0	4.7					
2026	754.0	.0	754.0	1845.5	1845.5	4.8					
				16256.3							
											10576.1

INTERNAL RATE OF RETURN 8.11 PER CENT

**** ALT-3 (D) **** ALT-3 ****

YEAR	COST		BENEFIT		IRR16. SALVAGE V.	DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	DIRECT INDIRECT						
1987	7045.0	.0	.0	.0	.0	0	60956.	200643.	3.2916	139487.
1988	7044.0	.0	.0	.0	.0	1	54979.	158695.	2.8865	103716.
1989	7044.0	.0	.0	.0	.0	2	50223.	127183.	2.5324	76960.
1990	8922.0	36.0	794.8	1.8	.0	3	46372.	103232.	2.2262	58660.
1991	6471.0	36.0	1001.0	2.2	.0	4	43702.	84813.	1.9682	41612.
1992	698.0	.0	4729.8	3.2	3281.0	5	40549.	70483.	1.7382	29934.
1993	698.0	.0	4785.1	3.2	3350.0	6	38294.	59205.	1.5461	20911.
1994	698.0	.0	4863.5	3.3	3419.0	7	36350.	50229.	1.3818	13879.
1995	698.0	.0	4944.1	3.3	3490.0	8	34652.	43009.	1.2411	8356.
1996	698.0	.0	5024.9	3.4	3561.0	9	33151.	37138.	1.1203	3987.
1997	698.0	.0	5107.8	3.4	3634.0	10	31810.	32518.	1.0160	508.
1998	698.0	.0	5190.8	3.4	3707.0	11	30600.	28323.	.9256	-2277.
1999	698.0	.0	5275.1	3.5	3781.0	12	29499.	24982.	.8469	-6517.
2000	698.0	.0	5334.5	3.5	3830.0	13	28491.	22165.	.7780	-6326.
2001	698.0	.0	5345.1	3.6	3830.0	14	27561.	19770.	.7173	-7791.
2002	698.0	.0	5355.8	3.6	3830.0	15	26698.	17720.	.6687	-8979.
2003	698.0	.0	5366.8	3.6	3830.0	16	25895.	15953.	.6160	-9942.
2004	698.0	.0	5377.9	3.7	3830.0	17	25143.	14420.	.5735	-10723.
2005	698.0	.0	5389.2	3.7	3830.0	18	24437.	13083.	.5354	-11854.
2006	698.0	.0	5400.7	3.8	3830.0	19	23771.	11910.	.5010	-11861.
2007	698.0	.0	5412.5	3.8	3830.0	20	23142.	10876.	.4700	-12266.
2008	698.0	.0	5424.4	3.9	3830.0	21	22546.	9961.	.4418	-12586.
2009	698.0	.0	5436.5	3.9	3830.0	22	21981.	9146.	.4161	-12834.
2010	698.0	.0	5448.9	4.0	3830.0	23	21443.	8420.	.3977	-13023.
2011	698.0	.0	5461.4	4.0	3830.0	24	20930.	7768.	.3712	-13161.
2012	698.0	.0	5474.2	4.0	3830.0	25	20440.	7183.	.3514	-13257.
2013	698.0	.0	5487.3	4.1	3830.0	26	19972.	6655.	.3332	-13317.
2014	698.0	.0	5500.5	4.1	3830.0	27	19524.	6177.	.3164	-13347.
2015	698.0	.0	5514.0	4.2	3830.0	28	19094.	5744.	.3008	-13351.
2016	698.0	.0	5527.8	4.2	3830.0	29	18682.	5350.	.2863	-13393.
2017	698.0	.0	5541.8	4.3	3830.0	30	18287.	4990.	.2729	-13296.
2018	698.0	.0	5556.0	4.3	3830.0					
2019	698.0	.0	5570.6	4.4	3830.0					
2020	698.0	.0	5585.4	4.4	3830.0					
2021	698.0	.0	5600.4	4.5	3830.0					
2022	698.0	.0	5615.8	4.5	3830.0					
2023	698.0	.0	5631.4	4.6	3830.0					
2024	698.0	.0	5647.4	4.7	3830.0					
2025	698.0	.0	5663.7	4.7	3830.0					
2026	698.0	.0	16256.3	4.8	3830.0					

INTERNAL RATE OF RETURN 10.18 PER CENT

10576.1

**** ALT-3 (E) **** ALT-3 ****

YEAR	COST		BENEFIT			IRRIG.	SALVAGE V.	DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	DIRECT	INDIRECT							
1987	8915.0	.0	.0	.0	.0	.0	.0	9590.	215913.	2.3070	122323.	
1988	8914.0	.0	.0	.0	.0	.0	.0	82933.	170865.	2.0603	87932.	
1989	9962.0	.0	.0	.0	.0	.0	.0	74553.	137000.	1.8376	62447.	
1990	11060.0	36.0	794.8	793.0	1.8	.0	.0	67856.	111241.	1.6394	43385.	
1991	8609.0	36.0	1001.0	998.8	2.2	.0	.0	62419.	91419.	1.4646	29000.	
1992	1318.0	.0	5105.8	1465.6	3.2	3657.0	.0	57985.	75988.	1.3116	18052.	
1993	1318.0	.0	5169.1	1431.8	3.2	3734.0	.0	54181.	63837.	1.1782	9656.	
1994	1318.0	.0	5237.5	1441.2	3.3	3813.0	.0	50992.	54162.	1.0622	3169.	
1995	1318.0	.0	5346.1	1450.8	3.3	3892.0	.0	48248.	46375.	.9612	3169.	
1996	1318.0	.0	5436.9	1460.5	3.4	3973.0	.0	45856.	40043.	.8732	-5813.	
1997	1318.0	.0	5527.8	1470.4	3.4	4054.0	.0	43748.	34842.	.7964	-8906.	
1998	1318.0	.0	5619.8	1480.4	3.4	4136.0	.0	41871.	30331.	.7292	-11341.	
1999	1318.0	.0	5713.1	1490.6	3.5	4219.0	.0	40185.	26924.	.6700	-13260.	
2000	1318.0	.0	5779.5	1501.0	3.5	4275.0	.0	38637.	23883.	.6178	-14774.	
2001	1318.0	.0	5790.1	1511.5	3.6	4275.0	.0	37263.	21298.	.5716	-15965.	
2002	1318.0	.0	5800.8	1522.2	3.6	4275.0	.0	35982.	19084.	.5304	-16898.	
2003	1318.0	.0	5811.8	1533.1	3.6	4275.0	.0	34800.	17177.	.4936	-17623.	
2004	1318.0	.0	5822.9	1544.2	3.7	4275.0	.0	33702.	15522.	.4606	-18180.	
2005	1318.0	.0	5834.2	1555.5	3.7	4275.0	.0	32679.	14079.	.4308	-18600.	
2006	1318.0	.0	5845.7	1567.0	3.8	4275.0	.0	31721.	12913.	.4039	-18998.	
2007	1318.0	.0	5857.5	1578.6	3.8	4275.0	.0	30822.	11697.	.3795	-19125.	
2008	1318.0	.0	5869.4	1590.5	3.9	4275.0	.0	29975.	10709.	.3573	-19265.	
2009	1318.0	.0	5881.5	1602.6	3.9	4275.0	.0	29175.	9831.	.3370	-19344.	
2010	1318.0	.0	5893.9	1614.9	4.0	4275.0	.0	28417.	9047.	.3184	-19370.	
2011	1318.0	.0	5906.4	1627.4	4.0	4275.0	.0	27699.	8345.	.3013	-19354.	
2012	1318.0	.0	5919.2	1640.2	4.0	4275.0	.0	27016.	7714.	.2855	-19302.	
2013	1318.0	.0	5932.3	1653.2	4.1	4275.0	.0	26365.	7144.	.2710	-19221.	
2014	1318.0	.0	5945.5	1666.4	4.1	4275.0	.0	25744.	6629.	.2575	-19115.	
2015	1318.0	.0	5959.0	1679.8	4.2	4275.0	.0	25151.	6162.	.2450	-18989.	
2016	1318.0	.0	5972.8	1693.5	4.2	4275.0	.0	24584.	5738.	.2334	-18846.	
2017	1318.0	.0	5986.8	1707.5	4.3	4275.0	.0	24041.	5351.	.2226	-18690.	
2018	1318.0	.0	6001.0	1721.7	4.3	4275.0	.0					
2019	1318.0	.0	6015.6	1736.2	4.4	4275.0	.0					
2020	1318.0	.0	6030.4	1750.9	4.4	4275.0	.0					
2021	1318.0	.0	6045.4	1765.9	4.5	4275.0	.0					
2022	1318.0	.0	6060.8	1781.3	4.5	4275.0	.0					
2023	1318.0	.0	6076.4	1796.9	4.6	4275.0	.0					
2024	1318.0	.0	6092.4	1812.8	4.7	4275.0	.0					
2025	1318.0	.0	6108.7	1829.0	4.7	4275.0	.0					
2026	1318.0	.0	16701.3	1845.5	4.8	4275.0	10576.1					

INTERNAL RATE OF RETURN 7.63 PER CENT

***** ALT-3 *****

(F)

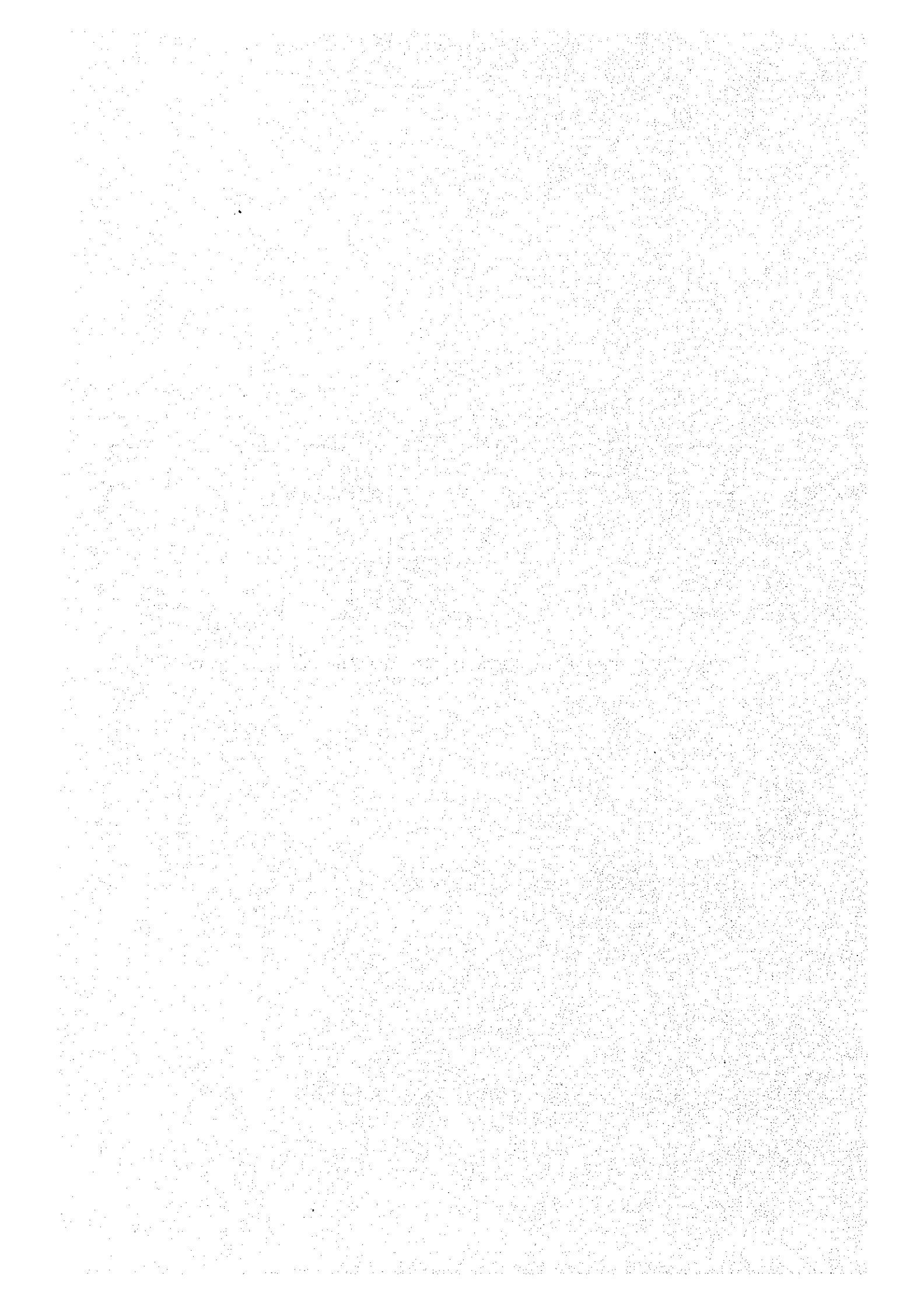
***** ALT-3 *****

YEAR	COST		BENEFIT				SALVAGE V.	DISCOUNT RATE	ACCU. DISCOUNTED COST	ACCU. DISCOUNTED BENEFIT	B/C RATIO	NPV
	TOTAL	CONSTRUCTION MAINTENANCE	TOTAL	DIRECT	INDIRECT	IRR16.						
1987	7045.0	.0	.0	.0	.0	.0	.0	82279.	215913.	2.6742	133634.	
1988	7044.0	.0	.0	.0	.0	.0	.0	72289.	170865.	2.3636	98576.	
1989	8091.0	.0	.0	.0	.0	.0	.0	64470.	137090.	2.1250	72538.	
1990	9154.0	36.0	794.8	793.0	1.8	.0	.0	58253.	111241.	1.9096	52988.	
1991	6739.0	36.0	1001.0	998.8	2.2	.0	.0	53234.	91619.	1.7173	38185.	
1992	1262.0	.0	5105.8	1445.6	3.2	3637.0	.0	49120.	75988.	1.3470	26868.	
1993	1262.0	.0	5169.1	1431.8	3.2	3734.0	.0	45696.	63837.	1.3970	18140.	
1994	1262.0	.0	5237.5	1441.2	3.3	3813.0	.0	42807.	54162.	1.2652	11355.	
1995	1262.0	.0	5346.1	1450.8	3.3	3882.0	.0	40337.	46375.	1.1497	6039.	
1996	1262.0	.0	5436.9	1460.5	3.4	3973.0	.0	38197.	40043.	1.0483	1846.	
1997	1262.0	.0	5527.8	1470.4	3.4	4054.0	.0	36323.	34342.	.9592	-1481.	
1998	1262.0	.0	5619.8	1480.4	3.4	4136.0	.0	34665.	30531.	.8807	-4134.	
1999	1262.0	.0	5713.1	1490.6	3.5	4219.0	.0	33183.	26974.	.8114	-6259.	
2000	1262.0	.0	5779.5	1501.0	3.5	4275.0	.0	31848.	23883.	.7499	-7966.	
2001	1262.0	.0	5790.1	1511.5	3.6	4275.0	.0	30636.	21298.	.6952	-9339.	
2002	1262.0	.0	5800.8	1522.2	3.6	4275.0	.0	29529.	19084.	.6463	-10444.	
2003	1262.0	.0	5811.8	1533.1	3.6	4275.0	.0	28510.	17177.	.6075	-11334.	
2004	1262.0	.0	5822.9	1544.2	3.7	4275.0	.0	27369.	15522.	.5630	-12647.	
2005	1262.0	.0	5834.2	1555.5	3.7	4275.0	.0	26195.	14079.	.5274	-12616.	
2006	1262.0	.0	5845.7	1567.0	3.8	4275.0	.0	25880.	12813.	.4951	-13067.	
2007	1262.0	.0	5857.5	1578.6	3.8	4275.0	.0	25117.	11697.	.4657	-13419.	
2008	1262.0	.0	5869.4	1590.5	3.9	4275.0	.0	24400.	10789.	.4389	-13691.	
2009	1262.0	.0	5881.5	1602.6	3.9	4275.0	.0	23725.	9831.	.4144	-13894.	
2010	1262.0	.0	5893.9	1614.9	4.0	4275.0	.0	23088.	9047.	.3919	-14041.	
2011	1262.0	.0	5906.4	1627.4	4.0	4275.0	.0	22485.	8345.	.3711	-14140.	
2012	1262.0	.0	5919.2	1640.2	4.1	4275.0	.0	21913.	7714.	.3520	-14199.	
2013	1262.0	.0	5932.3	1653.2	4.1	4275.0	.0	21369.	7144.	.3343	-14275.	
2014	1262.0	.0	5945.5	1666.4	4.1	4275.0	.0	20851.	6629.	.3179	-14272.	
2015	1262.0	.0	5959.0	1679.8	4.2	4275.0	.0	20358.	6162.	.3027	-14195.	
2016	1262.0	.0	5972.8	1693.5	4.2	4275.0	.0	19886.	5738.	.2885	-14149.	
2017	1262.0	.0	5986.8	1707.5	4.3	4275.0	.0	19436.	5351.	.2753	-14085.	
2018	1262.0	.0	6001.0	1721.7	4.3	4275.0	.0	19000.	4989.			
2019	1262.0	.0	6015.6	1736.2	4.4	4275.0	.0	18588.	4647.			
2020	1262.0	.0	6030.4	1750.9	4.4	4275.0	.0	18199.	4321.			
2021	1262.0	.0	6045.4	1765.9	4.5	4275.0	.0	17834.	4011.			
2022	1262.0	.0	6060.8	1781.3	4.5	4275.0	.0	17491.	3714.			
2023	1262.0	.0	6076.4	1796.9	4.6	4275.0	.0	17161.	3431.			
2024	1262.0	.0	6092.4	1812.8	4.7	4275.0	.0	16853.	3162.			
2025	1262.0	.0	6108.7	1829.0	4.7	4275.0	.0	16566.	2916.			
2026	1262.0	.0	16701.3	1845.5	4.8	4275.0	10576.1	19436.	5351.			

INTERNAL RATE OF RETURN 9.55 PER CENT

APPENDIX - 5

THE REVIEWED BASE FLOW BY THE LATEST DATA



In addition to the results in 'SUPPORTING REPORT (4), WATER CONSERVATION STUDY, OCTOBER, 1983', the base flow was reviewed by using the latest data to be obtained up to June, 1984.

1.1 SIMULATION MODEL

After examination, the monthly rainfall amount limited to 500mm was suitable for the result. The results of verification and the fixed parameters of the model are shown in Fig.-1.1 and Table-1.1 respectively. From Fig.-1.1, the followings can be said.

- ① The simulated base flow agrees with the observed base flow as a whole at each station, however, a small discrepancy is seen a little bit in the hydrological year, 1983/84.
- ② The reason of item ① is thought as follows:
 - . the observation was done just after rainfall.
 - . the data was not observed with accurate (none of Japanese accompanied with the observation in this period).
 - . the average rainfall in the basin was not obtained.

Table-1.1 Parameters for Base Flow Model

Parameter	Unit	Unit M K. Mujur	Unit R K. Rejali	Unit G. K. Glidik
Total Contribution Month n		12	12	12
Coefficient Ca		0.280	0.323	0.723
Coefficient Cm	Cm (1)	0.090	0.100	0.065
	Cm (2)	0.120	0.250	0.160
	Cm (3)	0.145	0.200	0.180
	Cm (4)	0.135	0.130	0.150
	Cm (5)	0.130	0.080	0.130
	Cm (6)	0.120	0.065	0.100
	Cm (7)	0.100	0.050	0.075
	Cm (8)	0.075	0.045	0.060
	Cm (9)	0.040	0.035	0.040
	Cm (10)	0.025	0.025	0.020
	Cm (11)	0.015	0.015	0.015
	Cm (12)	0.005	0.005	0.005

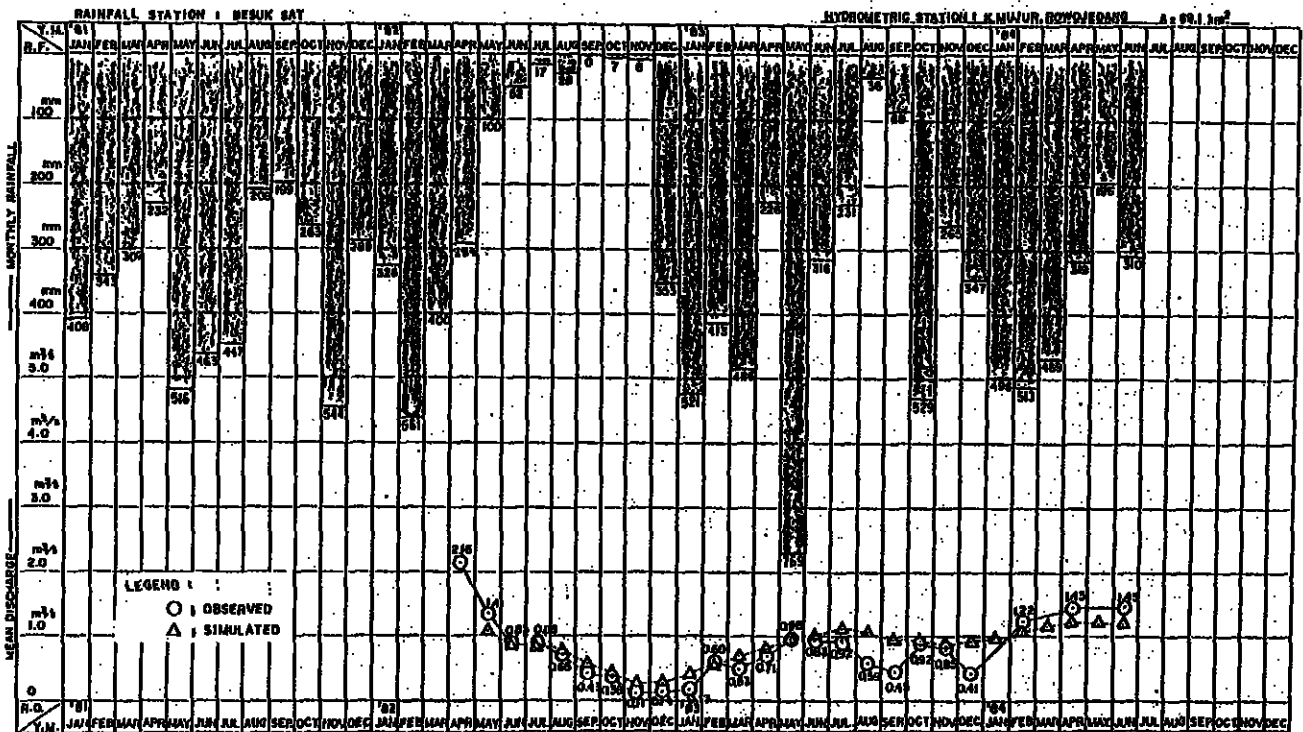


Fig.-1.1(1) Result of Verification (K. Mujur)

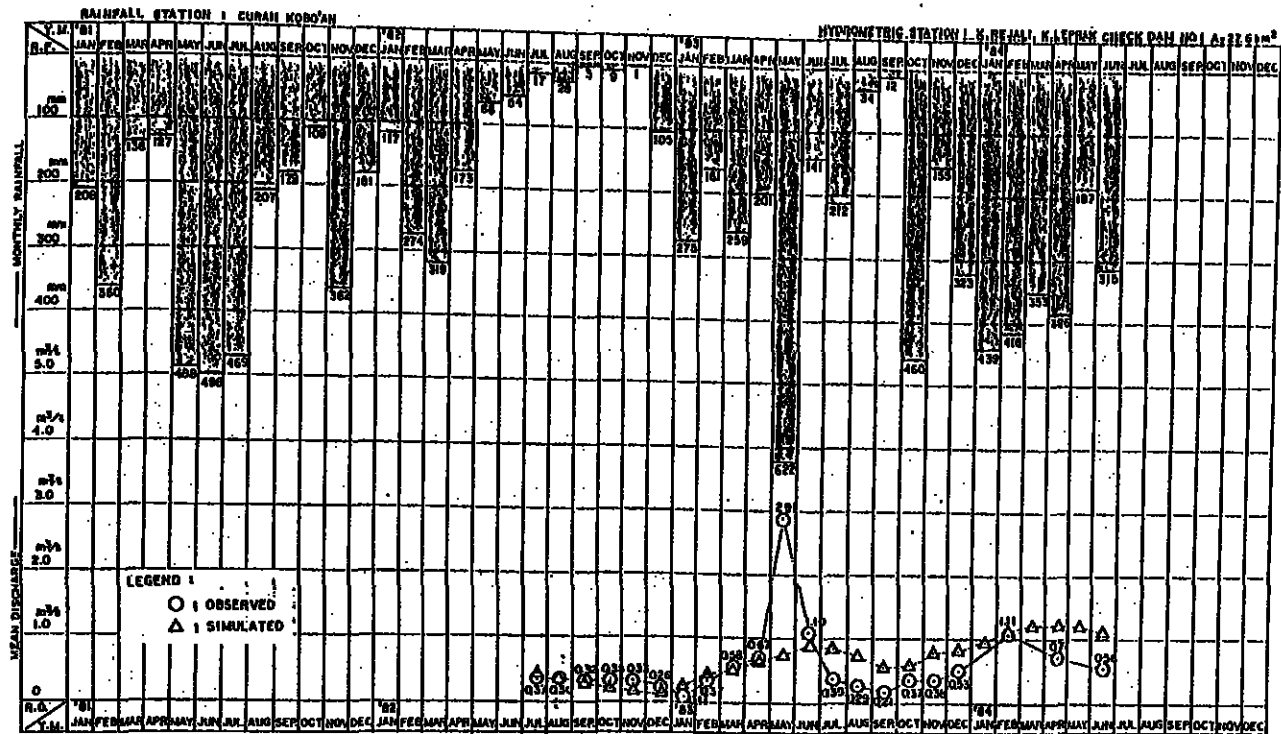
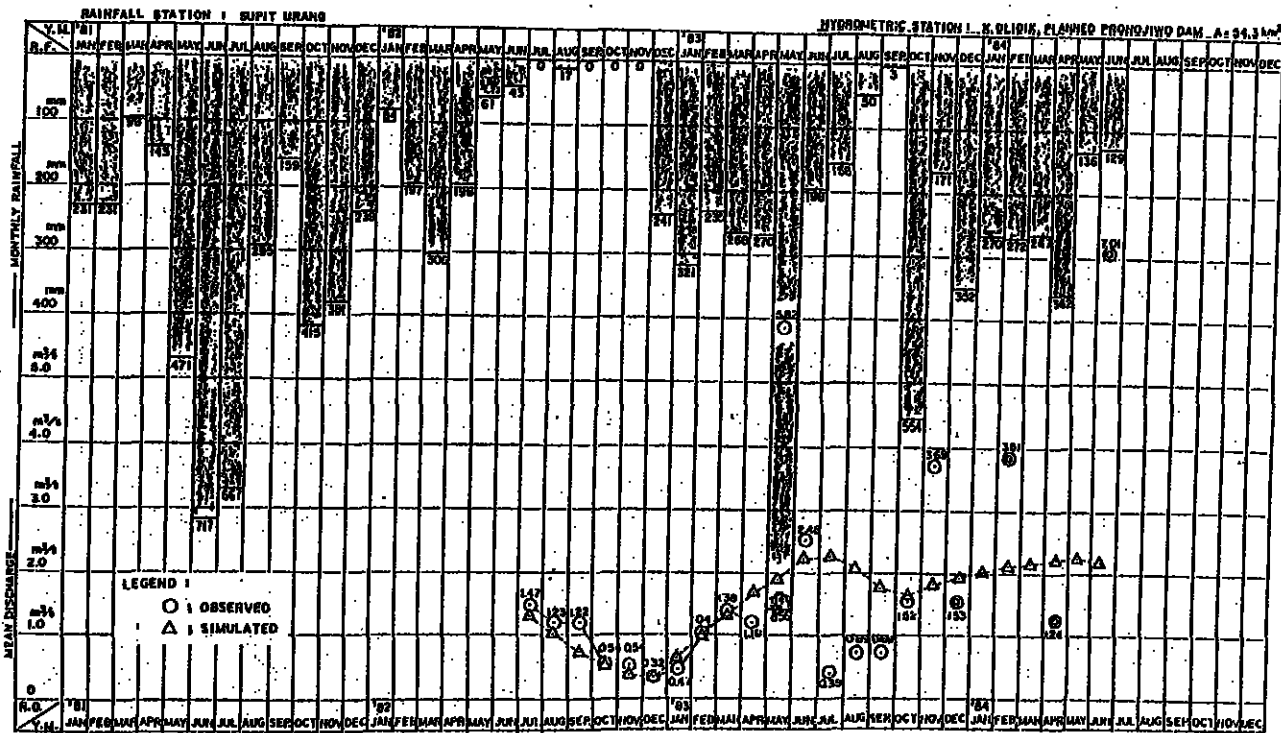


Fig.-1.1(2) Result of Verification (K. Rejali)



Note : ⊙ : Estimated Value

Fig.-1.1(3) Result of Verification (K. Glidik)

1.2 SIMULATION OF LONG-TERM BASE FLOW

The simulation results of long-term base flow are shown in the following figures and tables.

- ① Fig.-1.2: Annual Mean Base Flow
- ② Fig.-1.3: Annual Mean Monthly Base Flow Distribution
- ③ Fig.-1.4: Annual Mean Monthly Base Flow and Rainfall Distribution
- ④ Fig.-1.5: Monthly Distribution of Base Flow
- ⑤ Table-1.2: Characteristics of Simulated Monthly Base Flow
- ⑥ Table-1.3: Computer Output of Long-Term Base Flow Simulation

Table-1.2 Characteristics of Simulated Monthly Base Flow

Reference Point \ Items	Q (m ³ /s)	σ _n (m ³ /s)	C _f (N.D.)	q (m ³ /s/km ²)
(M) Intake Rowojedang of K. Mujur	0.957 (0.898)	0.252 (0.258)	0.263 (0.287)	0.014 (0.013)
(R) Leprak No.1 Check Dam of K. Rejali	0.922 (0.992)	0.270 (0.309)	0.293 (0.312)	0.033 (0.036)
(G) Planned Pronojiwo Dam of K. Glidik	2.249 (2.468)	0.610 (0.681)	0.271 (0.276)	0.041 (0.045)

- Notes: Q = Monthly mean base flow
 σ_n = Standard deviation
Cf = Coefficient of fluctuation (σ_n/Q)
q = Specific mean base flow (Q/area)
() = Values obtained using the data during the
last 30 years (1953 to 1982)

As shown in Table-1.3, there is no big difference between upper values and lower values.

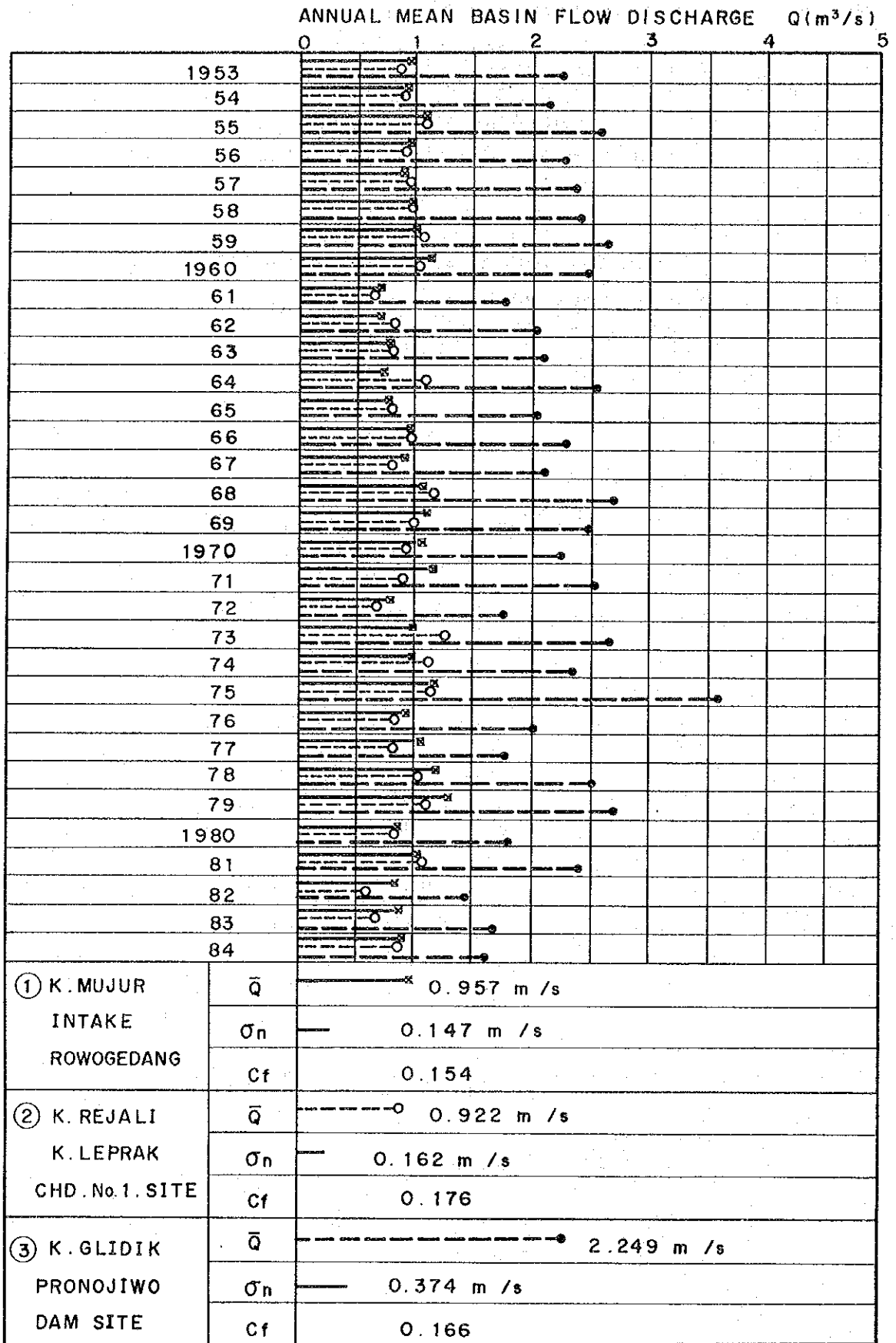


Fig - 1.2

Annual Mean Base Flow

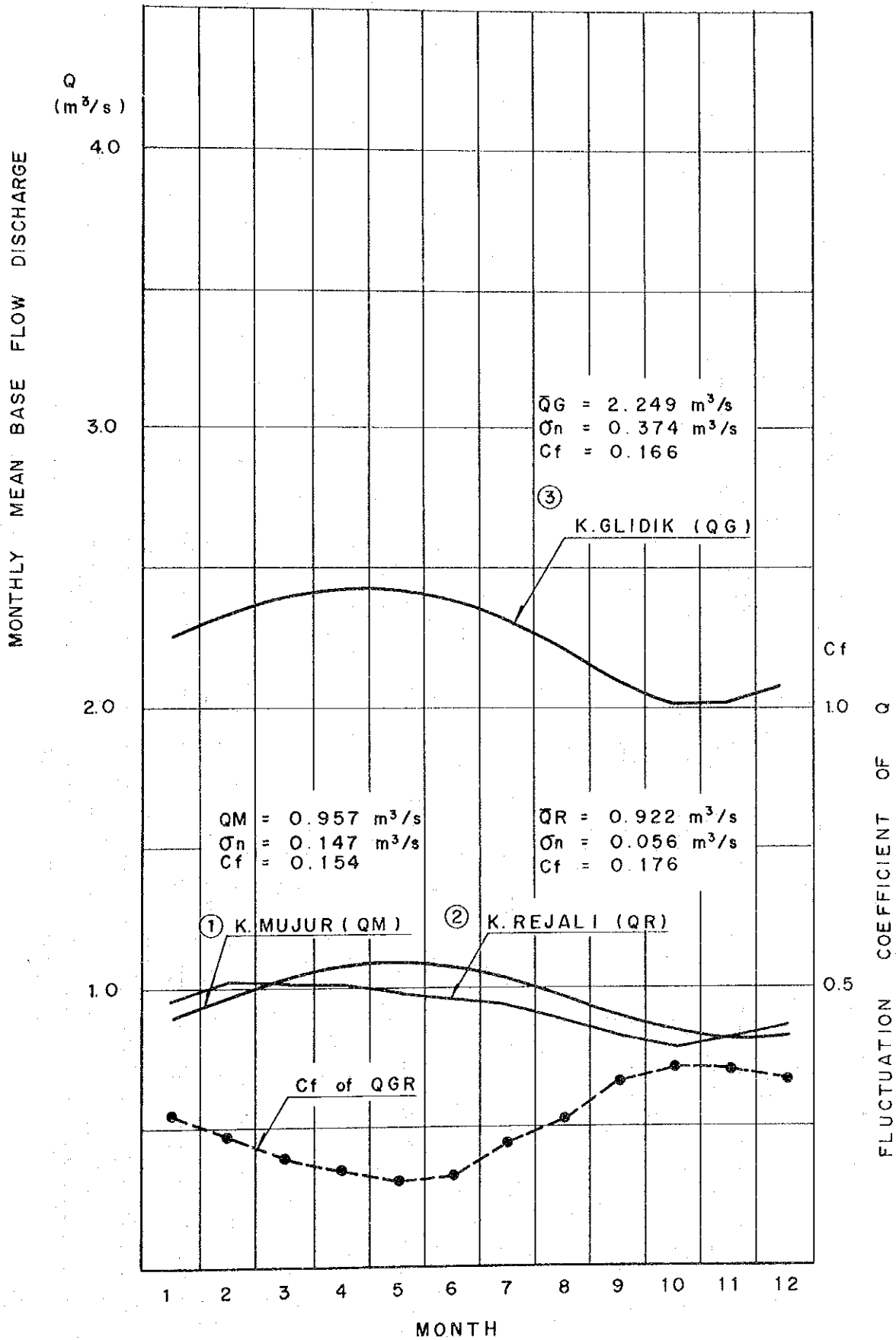


Fig.-1.3(1) Annual Mean Monthly Base Flow Distribution

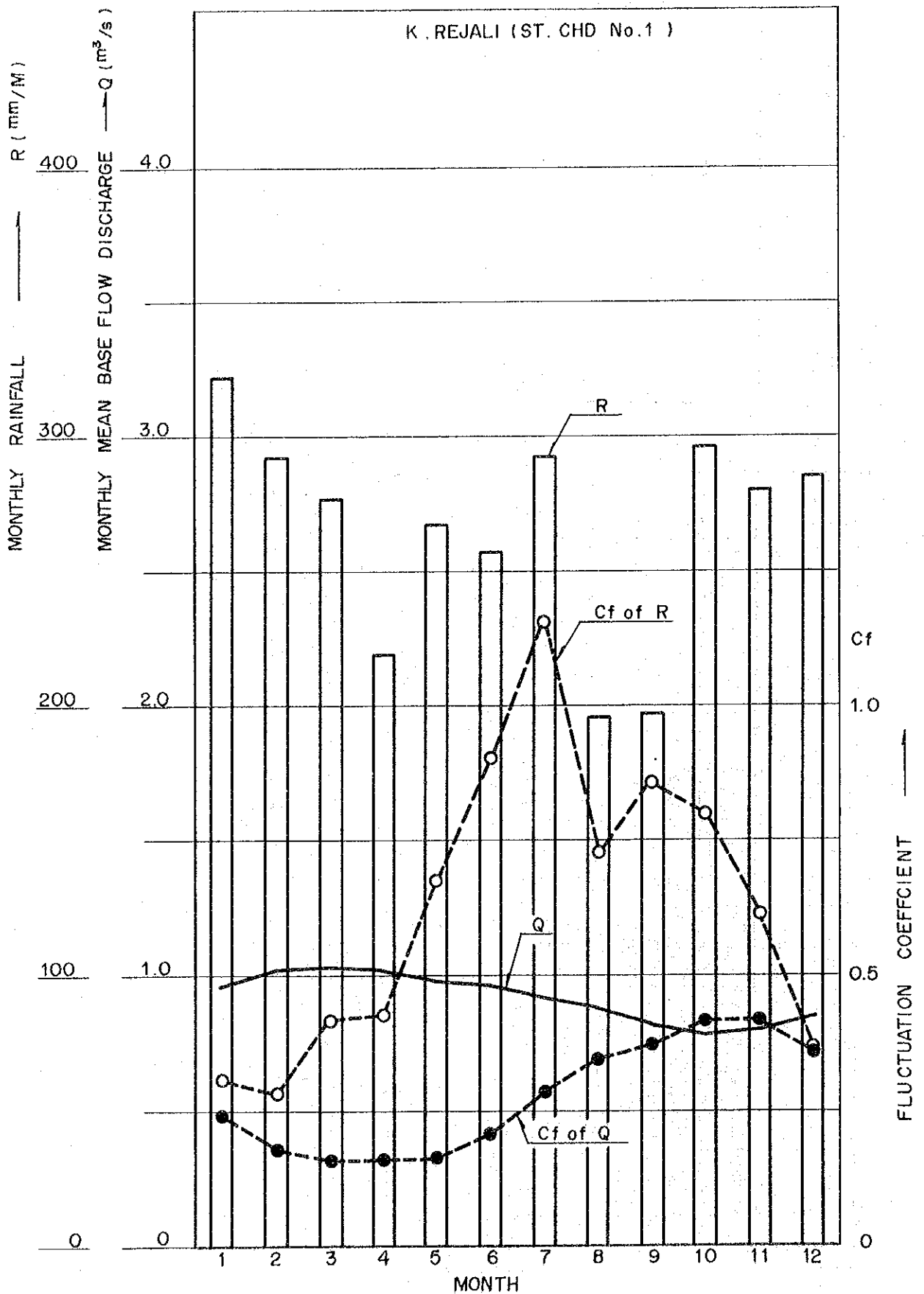


Fig.-1.3(2) : Annual Mean Monthly Base Flow and Rainfall Distribution

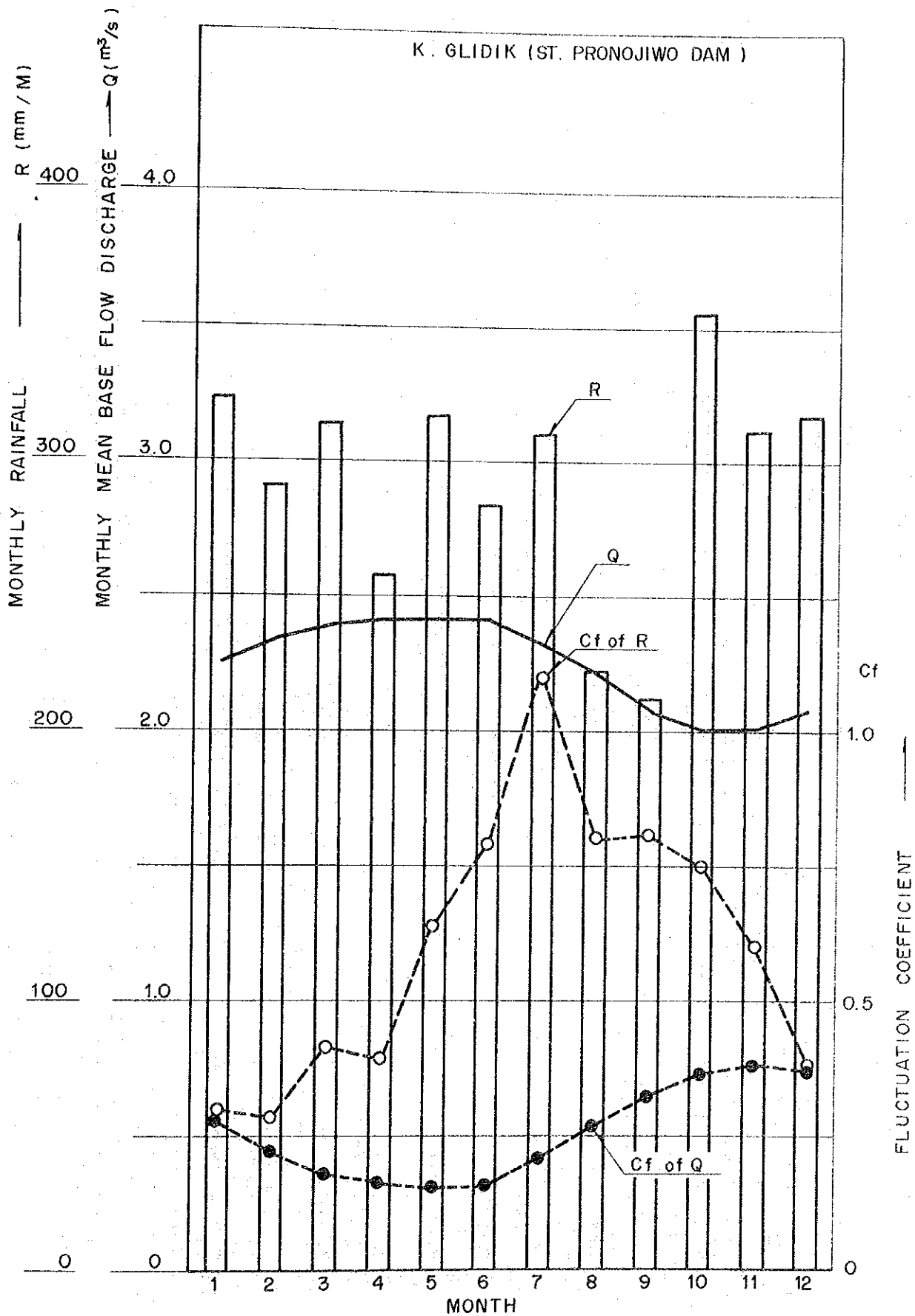


Fig - 1.3(3) : Annual Mean Monthly Base Flow and Rainfall Distribution

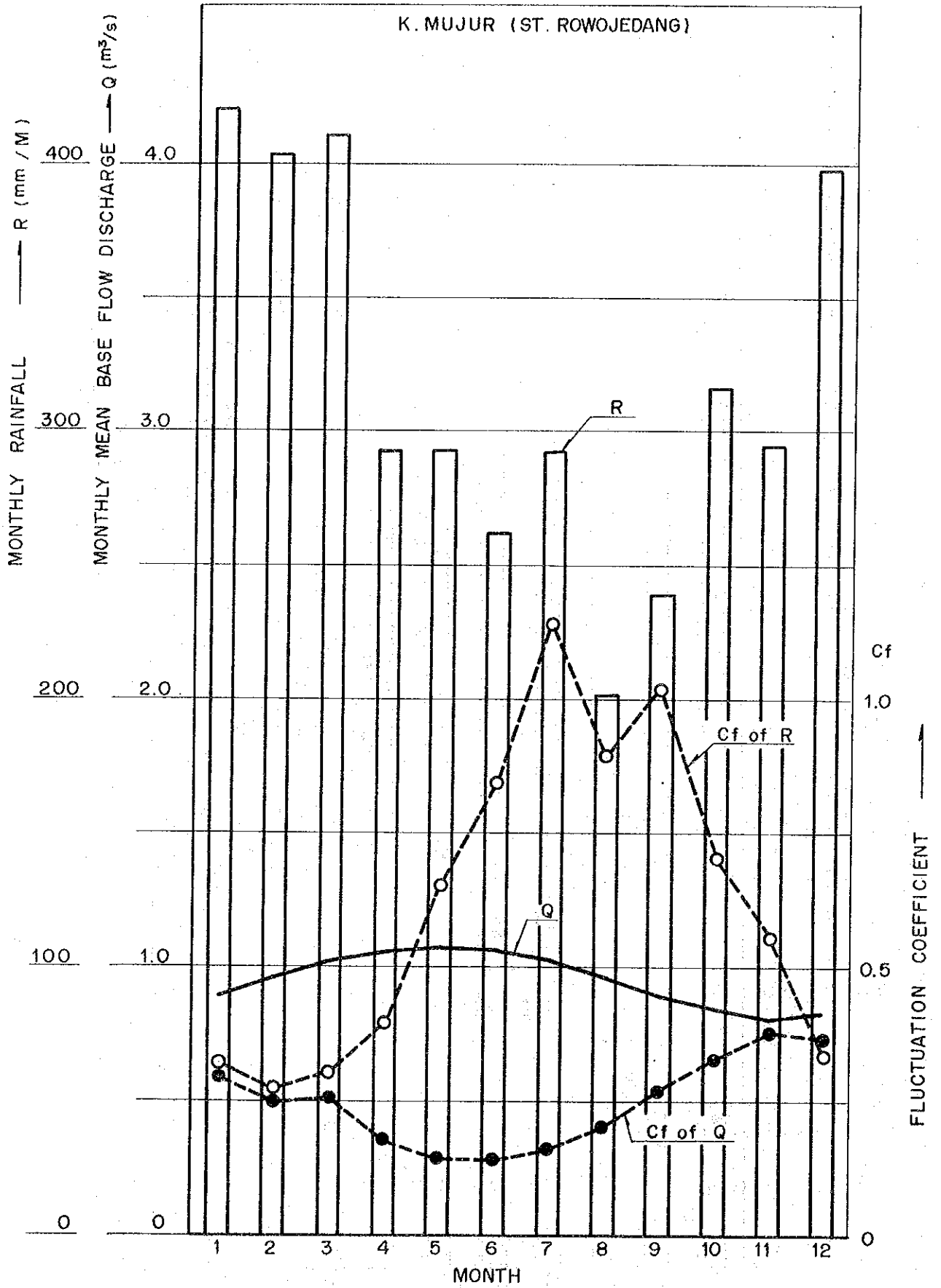


Fig - 1.4 : Annual Meah Monthly Base Flow and Rainfall Distribution

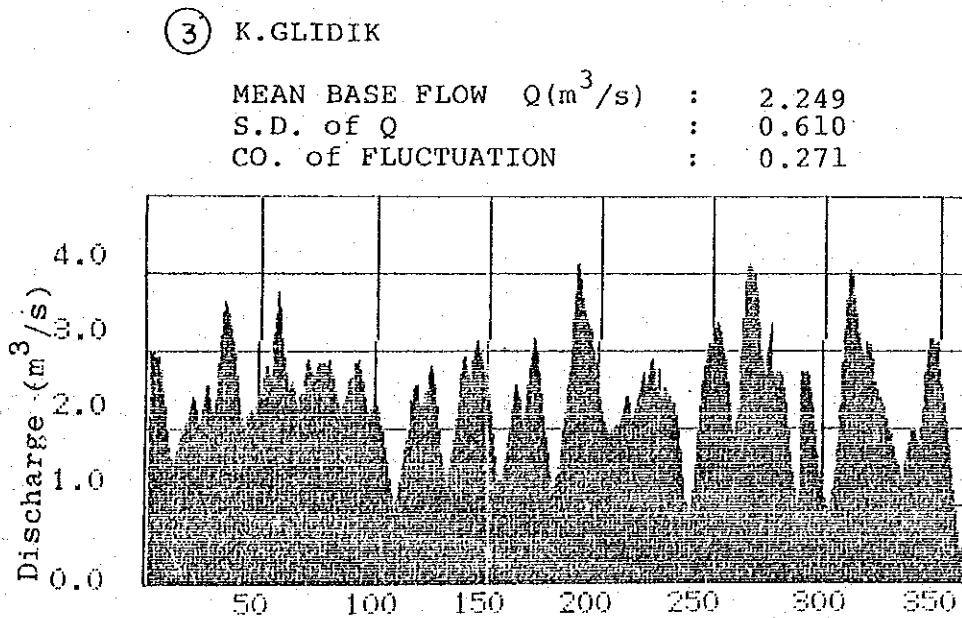
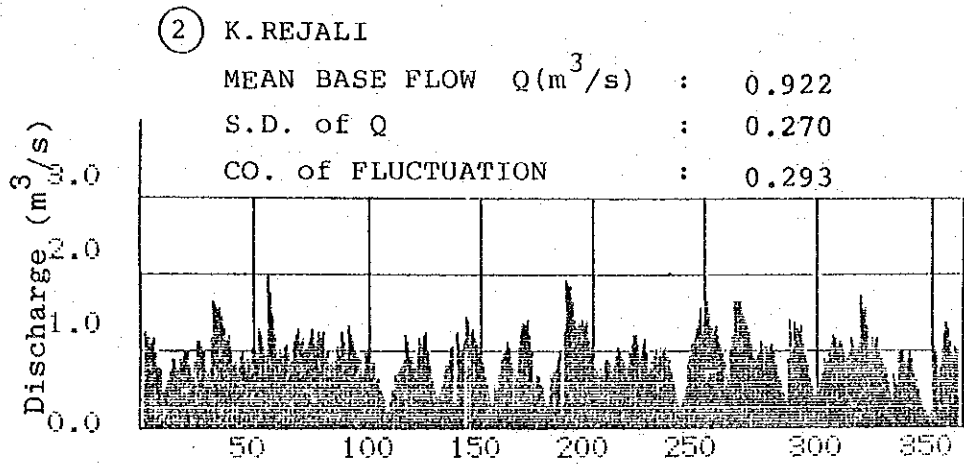
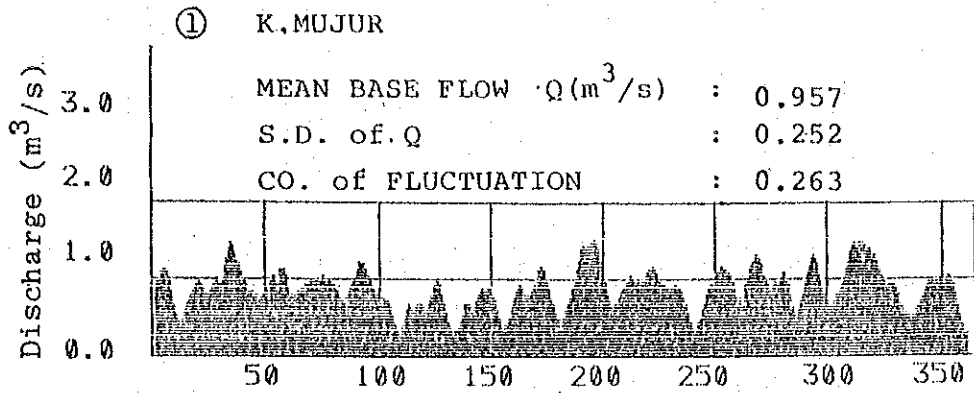


Fig.- 1.5 : Monthly Distribution of Base Flow

Table-1.3 (1) : Computer Output of Long-term Base
Flow Simulation

	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	MEAN
1953	1.029	1.107	1.193	1.249	1.251	1.138	1.013	0.879	0.734	0.605	0.518	0.555	11.273	0.939
1954	0.666	0.761	0.851	0.951	1.015	1.116	1.121	1.130	1.024	0.956	0.926	0.929	11.426	0.952
1955	0.991	1.016	1.061	1.045	1.028	1.066	1.121	1.153	1.170	1.219	1.229	1.206	13.306	1.109
1956	1.119	1.100	1.047	0.966	0.952	0.920	0.968	0.968	0.921	0.896	0.859	0.926	11.643	0.970
1957	0.940	1.002	1.079	1.107	1.098	1.019	1.042	0.976	0.886	0.738	0.594	0.610	11.090	0.924
1958	0.681	0.760	0.827	0.910	0.968	1.070	1.084	1.143	1.079	1.076	1.051	1.088	11.736	0.978
1959	1.115	1.149	1.119	1.082	1.093	1.088	1.072	0.963	0.928	0.861	0.836	0.875	12.181	1.015
1960	0.914	1.002	1.081	1.178	1.269	1.362	1.318	1.244	1.162	1.101	1.037	0.960	13.628	1.136
1961	0.919	0.874	0.848	0.878	0.890	0.845	0.797	0.694	0.589	0.469	0.386	0.347	8.536	0.711
1962	0.433	0.579	0.700	0.731	0.715	0.705	0.781	0.792	0.720	0.682	0.677	0.765	8.281	0.690
1963	0.875	0.945	1.046	1.119	1.095	1.004	0.863	0.714	0.547	0.410	0.331	0.330	9.279	0.773
1964	0.371	0.465	0.612	0.716	0.807	0.826	0.799	0.772	0.765	0.862	0.926	0.942	8.864	0.739
1965	0.979	0.976	1.061	1.036	0.988	0.864	0.761	0.643	0.535	0.454	0.471	0.533	9.299	0.775
1966	0.651	0.775	0.927	1.019	1.116	1.083	0.993	0.918	0.893	0.912	0.965	1.028	11.280	0.940
1967	1.123	1.237	1.293	1.267	1.149	1.023	0.920	0.792	0.654	0.542	0.454	0.521	10.975	0.915
1968	0.563	0.644	0.727	0.874	1.023	1.132	1.244	1.270	1.340	1.357	1.337	1.341	12.852	1.071
1969	1.361	1.400	1.430	1.423	1.335	1.207	1.102	0.964	0.835	0.734	0.653	0.700	13.145	1.095
1970	0.751	0.851	0.930	1.014	1.107	1.162	1.210	1.138	1.125	1.080	1.085	1.100	12.553	1.046
1971	1.150	1.221	1.293	1.279	1.291	1.288	1.233	1.110	1.015	1.009	0.992	1.005	13.885	1.157
1972	0.997	0.974	1.042	1.030	1.023	0.930	0.830	0.702	0.565	0.441	0.378	0.401	9.314	0.776
1973	0.499	0.573	0.725	0.844	0.996	1.063	1.109	1.062	1.095	1.135	1.123	1.123	11.347	0.946
1974	1.091	1.145	1.129	1.094	1.014	0.914	0.811	0.812	0.812	0.890	0.985	1.101	11.797	0.983
1975	1.221	1.316	1.412	1.446	1.399	1.276	1.117	1.030	1.016	1.004	0.989	1.037	14.264	1.189
1976	1.125	1.192	1.270	1.246	1.145	1.016	0.877	0.729	0.578	0.581	0.645	0.713	11.115	0.926
1977	0.844	0.982	1.145	1.268	1.303	1.248	1.140	1.013	0.894	0.829	0.737	0.770	12.174	1.014
1978	0.810	0.899	0.955	0.990	1.073	1.159	1.262	1.317	1.378	1.441	1.441	1.430	14.155	1.180
1979	1.427	1.442	1.401	1.397	1.359	1.379	1.309	1.304	1.194	1.085	1.041	0.974	15.311	1.276
1980	0.977	0.996	0.997	1.019	0.985	0.912	0.784	0.723	0.619	0.608	0.587	0.631	9.839	0.820
1981	0.713	0.809	0.888	0.918	1.018	1.099	1.185	1.176	1.130	1.083	1.112	1.100	12.231	1.019
1982	1.083	1.108	1.142	1.162	1.097	0.987	0.839	0.698	0.543	0.389	0.261	0.269	9.579	0.798
1983	0.830	0.536	0.720	0.830	0.998	1.092	1.139	1.053	0.936	0.928	0.892	0.903	10.411	0.868
1984	0.939	1.031	1.143	1.207	1.202	1.180	1.069	0.923	0.729	0.550	0.393	0.260	10.625	0.885
TOTAL	28.720	30.866	33.097	34.296	34.804	34.169	32.911	30.805	28.413	26.925	25.915	26.473	367.387	30.615
MEAN	0.898	0.965	1.034	1.072	1.088	1.068	1.028	0.963	0.888	0.841	0.810	0.827	11.481	0.957
S.D.	0.265	0.242	0.213	0.187	0.154	0.154	0.170	0.198	0.239	0.278	0.306	0.307	1.765	0.147
cf	0.296	0.251	0.206	0.174	0.141	0.144	0.165	0.205	0.269	0.331	0.378	0.371	0.154	0.154

Table-1.3 (2) : Computer Output of Long-term Base
Flow Simulation

***** K.REJAL1 (ST. CHD NO.1) 1952-1984 ***** RUNOFF

	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	MEAN
1953	1.271	1.117	1.067	1.094	1.090	1.036	0.829	0.693	0.628	0.529	0.539	0.658	10.552	0.879
1954	0.840	0.955	0.875	0.780	0.858	0.923	0.991	0.991	0.937	0.745	0.733	0.986	10.614	0.885
1955	1.183	1.120	0.974	0.843	0.716	0.810	1.119	1.298	1.274	1.268	1.287	1.201	13.094	1.091
1956	1.101	1.022	1.006	0.852	0.742	0.754	0.850	1.008	0.981	0.851	0.835	0.949	10.951	0.913
1957	1.082	1.032	1.106	1.216	1.107	0.920	0.957	1.095	0.969	0.782	0.598	0.607	11.471	0.956
1958	0.781	0.849	0.930	0.951	0.868	0.901	1.116	1.233	1.201	1.060	1.054	1.022	11.965	0.997
1959	1.098	1.213	1.260	1.133	1.132	1.205	1.204	1.132	0.934	0.858	0.820	0.902	12.890	1.074
1960	1.016	1.120	1.166	1.222	1.068	1.058	1.148	1.058	0.930	0.803	0.802	0.770	12.162	1.013
1961	0.819	0.988	0.992	0.892	0.790	0.714	0.598	0.551	0.630	0.345	0.276	0.316	7.710	0.643
1962	0.474	0.659	0.763	0.796	0.816	0.849	1.001	1.137	0.980	0.816	0.789	0.824	9.903	0.825
1963	1.056	1.178	1.147	1.231	1.146	0.868	0.660	0.497	0.381	0.386	0.532	0.686	9.768	0.814
1964	0.845	0.899	0.991	1.114	1.207	1.259	1.064	0.893	0.910	1.160	1.314	1.230	12.887	1.074
1965	1.113	1.105	1.044	1.116	0.913	0.789	0.694	0.555	0.637	0.386	0.473	0.630	9.153	0.763
1966	0.713	0.855	0.981	1.070	1.087	1.097	0.921	0.751	0.723	0.839	1.134	1.313	11.485	0.957
1967	1.323	1.304	1.261	1.038	0.823	0.667	0.588	0.569	0.514	0.464	0.410	0.507	9.467	0.789
1968	0.762	0.840	0.875	0.985	1.169	1.276	1.287	1.382	1.401	1.385	1.207	1.099	13.670	0.789
1969	1.168	1.264	1.289	1.291	1.250	1.026	0.902	0.803	0.725	0.684	0.721	0.771	11.893	1.139
1970	0.895	0.891	0.832	0.778	0.861	1.010	1.072	0.960	0.808	0.774	0.861	1.079	10.820	0.902
1971	1.206	1.253	1.182	1.023	0.936	1.110	1.110	0.887	0.774	0.904	1.043	1.040	12.468	1.039
1972	0.992	1.013	1.007	0.974	0.865	0.794	0.646	0.487	0.357	0.280	0.320	0.491	8.225	0.685
1973	0.709	0.961	1.075	1.167	1.241	1.391	1.499	1.486	1.363	1.448	1.411	1.264	15.015	1.251
1974	1.145	1.187	1.226	1.102	0.941	0.804	0.690	0.734	1.047	1.305	1.415	1.388	12.982	1.082
1975	1.418	1.409	1.331	1.292	1.212	1.068	0.872	0.787	0.910	1.085	1.160	1.098	13.643	1.137
1976	1.052	1.019	1.053	1.034	0.882	0.678	0.546	0.480	0.412	0.513	0.447	1.059	9.610	0.801
1977	1.034	1.070	1.082	1.148	1.087	0.872	0.697	0.594	0.503	0.471	0.447	0.503	9.508	0.792
1978	0.702	0.878	0.950	0.947	1.057	1.209	1.219	1.117	1.061	1.085	1.038	0.948	12.212	1.018
1979	0.914	1.052	1.175	1.103	1.086	1.186	1.265	1.198	1.168	0.941	0.871	0.997	12.958	1.080
1980	1.056	1.031	0.883	0.780	0.751	0.669	0.508	0.534	0.679	0.736	0.937	0.961	9.525	0.794
1981	0.947	0.937	0.973	0.853	0.887	1.150	1.372	1.388	1.193	0.992	0.914	0.979	12.583	1.049
1982	0.902	0.837	0.891	0.925	0.801	0.623	0.476	0.366	0.288	0.217	0.162	0.152	6.641	0.553
1983	0.274	0.437	0.526	0.615	0.761	0.934	0.870	0.773	0.583	0.609	0.805	0.852	8.938	0.670
1984	0.982	1.146	1.245	1.262	1.232	1.137	1.029	0.762	0.544	0.388	0.292	0.205	10.226	0.852
TOTAL	30.873	32.640	33.158	32.527	31.381	30.787	29.800	28.201	26.045	25.109	26.079	27.489	354.082	29.508
MEAN	0.965	1.020	1.036	1.016	0.981	0.962	0.931	0.881	0.814	0.785	0.815	0.859	11.065	0.922
S.D.	0.235	0.190	0.169	0.170	0.168	0.201	0.264	0.302	0.308	0.327	0.337	0.309	1.946	0.162
cf	0.243	0.186	0.164	0.167	0.171	0.209	0.284	0.343	0.379	0.417	0.413	0.360	0.176	0.176

Table-1.3 (3) : Computer Output of Long-term Base Flow Simulation

	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	MEAN
1953	2.973	2.881	2.818	2.795	2.736	2.591	2.298	2.007	1.807	1.603	1.513	1.634	27.656	2.305
1954	1.881	2.120	2.164	2.122	2.195	2.317	2.385	2.446	2.365	2.126	2.041	2.287	26.451	2.204
1955	2.546	2.589	2.491	2.316	2.093	2.119	2.439	2.715	2.831	2.960	3.045	2.991	31.136	2.595
1956	2.852	2.718	2.564	2.318	2.081	1.991	2.061	2.258	2.323	2.229	2.196	2.354	27.945	2.329
1957	2.505	2.535	2.636	2.788	2.714	2.494	2.482	2.555	2.420	2.162	1.863	1.734	28.888	2.407
1958	1.861	2.004	2.133	2.249	2.226	2.287	2.555	2.790	2.804	2.740	2.660	2.617	28.927	2.411
1959	2.655	2.820	2.889	2.806	2.801	2.889	2.902	2.801	2.574	2.336	2.221	2.227	31.920	2.660
1960	2.368	2.518	2.683	2.787	2.718	2.674	2.750	2.652	2.427	2.240	2.112	2.004	29.933	2.494
1961	2.052	2.237	2.326	2.258	2.168	2.019	1.820	1.649	1.438	1.186	1.035	1.006	21.193	1.766
1962	1.178	1.471	1.732	1.910	2.048	2.162	2.393	2.600	2.492	2.281	2.167	2.152	24.586	2.049
1963	2.368	2.589	2.658	2.811	2.815	2.476	2.107	1.763	1.386	1.241	1.325	1.519	25.056	2.088
1964	1.807	2.061	2.305	2.586	2.836	2.945	2.791	2.507	2.436	2.637	2.845	2.832	30.587	2.549
1965	2.766	2.727	2.671	2.582	2.431	2.189	1.963	1.710	1.440	1.266	1.308	1.469	24.523	2.044
1966	1.672	1.930	2.237	2.467	2.630	2.698	2.520	2.234	2.080	2.116	2.403	2.735	27.723	2.310
1967	2.901	3.022	3.051	2.813	2.450	2.110	1.807	1.615	1.463	1.320	1.219	1.343	25.116	2.093
1968	1.673	1.923	2.085	2.339	2.659	2.876	3.030	3.176	3.276	3.273	3.090	2.881	32.281	2.690
1969	2.864	2.943	2.980	3.028	2.985	2.740	2.490	2.289	2.039	1.897	1.852	1.903	30.009	2.501
1970	2.043	2.155	2.118	2.096	2.186	2.381	2.512	2.435	2.248	2.135	2.196	2.430	26.934	2.245
1971	2.659	2.738	2.765	2.658	2.567	2.700	2.724	2.370	2.120	2.199	2.377	2.470	30.347	2.529
1972	2.483	2.368	2.352	2.380	2.300	2.141	1.880	1.493	1.147	0.857	0.747	0.897	21.044	1.754
1973	1.278	1.765	2.296	2.632	2.815	2.995	3.153	3.128	2.851	2.851	2.985	3.046	31.892	2.658
1974	2.954	2.888	2.784	2.529	2.295	2.043	1.673	1.578	1.881	2.268	2.616	2.961	28.469	2.372
1975	3.173	3.237	3.278	3.362	3.448	3.335	2.913	2.530	2.488	2.709	2.939	3.015	36.429	3.036
1976	2.947	2.837	2.783	2.692	2.412	1.982	1.595	1.327	1.139	1.224	1.662	1.999	24.600	2.050
1977	2.081	2.102	2.106	2.186	2.264	2.099	1.835	1.609	1.400	1.260	1.160	0.980	21.083	1.737
1978	0.952	1.120	1.359	1.631	1.997	2.441	2.893	3.238	3.495	3.703	3.728	3.473	30.029	2.502
1979	3.164	2.987	2.848	2.748	2.790	2.944	2.981	2.855	2.593	2.245	2.094	2.214	32.463	2.705
1980	2.235	2.137	2.009	1.901	1.864	1.752	1.458	1.347	1.431	1.551	1.817	2.042	21.543	1.795
1981	2.048	2.063	2.006	1.822	1.844	2.198	2.594	2.858	2.845	2.744	2.812	2.857	28.691	2.391
1982	2.649	2.347	2.183	2.104	1.932	1.637	1.298	0.990	0.733	0.527	0.351	0.353	17.102	1.425
1983	0.633	0.994	1.278	1.538	1.888	2.198	2.254	2.072	1.759	1.650	1.796	1.917	19.978	1.665
1984	2.003	2.106	2.149	2.233	2.286	2.142	1.840	1.498	1.109	0.803	0.559	0.361	19.089	1.591
TOTAL	72.224	74.931	76.738	77.492	77.473	76.563	74.395	71.095	66.935	64.338	64.733	66.702	863.596	71.970
MEAN	2.257	2.342	2.398	2.422	2.421	2.393	2.325	2.222	2.092	2.011	2.023	2.084	26.987	2.249
S.D.	0.640	0.531	0.452	0.404	0.376	0.392	0.489	0.596	0.676	0.740	0.786	0.783	4.493	0.374
cf	0.284	0.227	0.188	0.167	0.155	0.164	0.210	0.268	0.323	0.368	0.389	0.376	0.167	0.166

RUNOFF

1952-1984

ST. PRONOJING DAM

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