

IV-1 Annual Benefit for Qda Areas

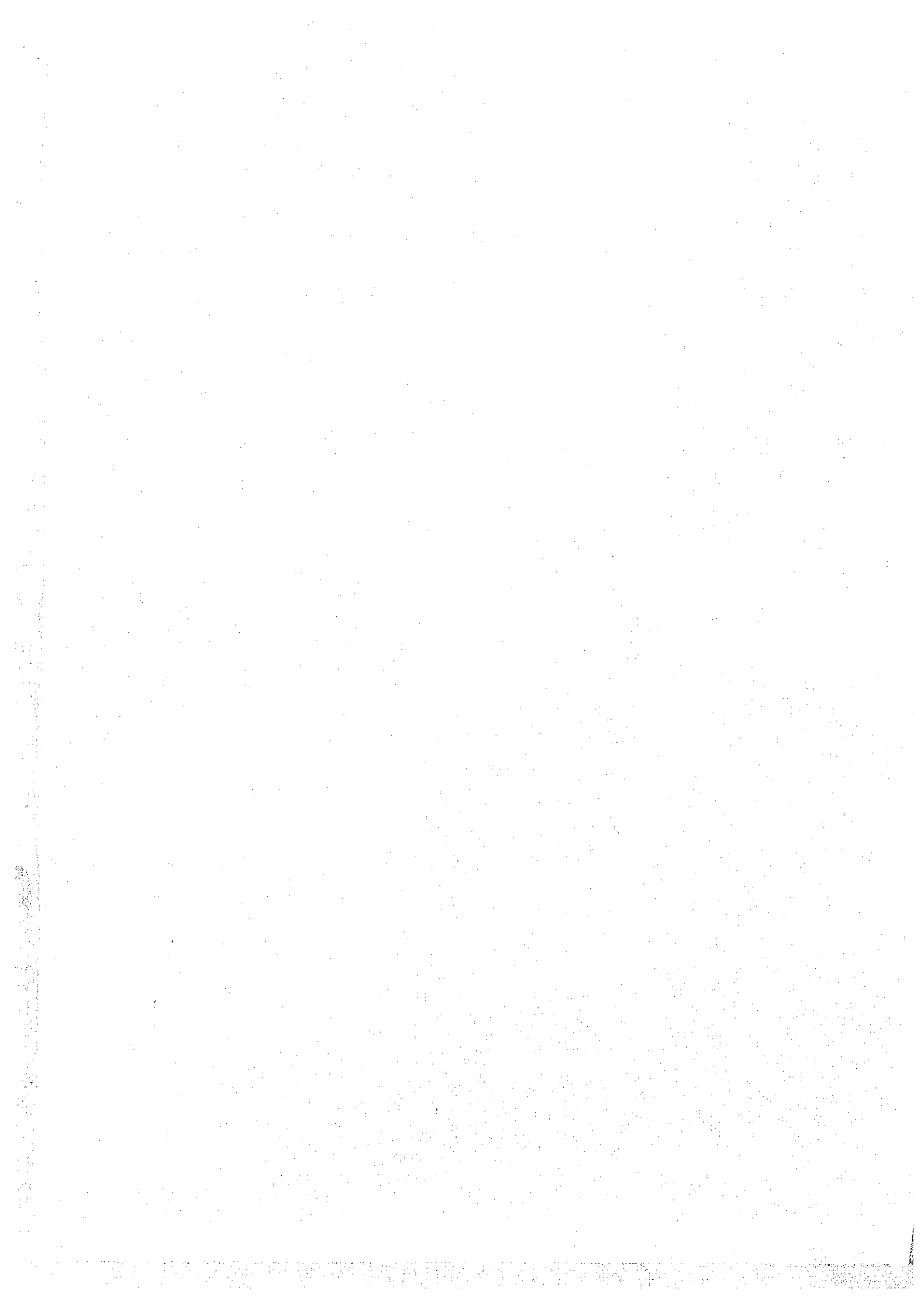


Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: CHACLACAYO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	1556.67	778.33	77.83
20	0.0500	0.0500	3981.00	2768.83	138.44
30	0.0333	0.0167	6165.67	5073.33	84.72
40	0.0250	0.0083	8225.33	7195.50	59.72
50	0.0200	0.0050	10120.00	9172.67	45.86
80	0.0125	0.0075	15799.67	12959.83	97.20
100	0.0100	0.0025	19460.00	17629.83	44.07
200	0.0050	0.0050			
TOTAL		0.9851			547.86

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: CHACRASANA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	273.33	136.67	13.67
20	0.0500	0.0500	698.33	485.83	24.29
30	0.0333	0.0167	1081.67	890.00	14.86
40	0.0250	0.0083	1442.67	1262.17	10.48
50	0.0200	0.0050	1773.33	1608.00	8.04
80	0.0125	0.0075	2769.67	2271.50	17.04
100	0.0100	0.0025	3413.33	3091.50	7.73
200	0.0050	0.0050			
TOTAL		0.9851			96.10

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: CALIFORNIA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	676.67	338.33	33.83
20	0.0500	0.0500	1729.67	1203.17	60.16
30	0.0333	0.0167	2678.33	2204.00	36.81
40	0.0250	0.0083	3572.33	3125.33	25.94
50	0.0200	0.0050	4393.33	3982.83	19.91
80	0.0125	0.0075	6860.00	5626.67	42.20
100	0.0100	0.0025	8450.00	7655.00	19.14
200	0.0050	0.0050			
TOTAL		0.9851			237.99

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: SANTA MARIA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	280.00	140.00	14.00
20	0.0500	0.0500	714.33	497.17	24.86
30	0.0333	0.0167	1105.00	909.67	15.19
40	0.0250	0.0083	1473.33	1289.17	10.70
50	0.0200	0.0050	1810.00	1641.67	8.21
80	0.0125	0.0075	2825.33	2317.67	17.38
100	0.0100	0.0025	3480.00	3152.67	7.88
200	0.0050	0.0050			
TOTAL		0.9851			98.22

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: LA CANTUTA  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	386.67	193.33	19.33
20	0.0500	0.0500	988.33	687.50	34.38
30	0.0333	0.0167	1530.33	1259.33	21.03
40	0.0250	0.0083	2041.00	1785.67	14.82
50	0.0200	0.0050	2510.00	2275.50	11.38
80	0.0125	0.0075	3919.33	3214.67	24.11
100	0.0100	0.0025	4826.67	4373.00	10.93
200	0.0050	0.0050			
TOTAL		0.9851			135.98

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: LA RONDA  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	430.00	215.00	21.50
20	0.0500	0.0500	1099.33	764.67	38.23
30	0.0333	0.0167	1702.67	1401.00	23.40
40	0.0250	0.0083	2271.00	1986.83	16.49
50	0.0200	0.0050	2793.33	2532.17	12.66
80	0.0125	0.0075	4361.33	3577.33	26.83
100	0.0100	0.0025	5370.00	4865.67	12.16
200	0.0050	0.0050			
TOTAL		0.9851			151.28

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: SANTA ANA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	466.67	233.33	23.33
20	0.0500	0.0500	1195.00	830.83	41.54
30	0.0333	0.0167	1852.33	1523.67	25.45
40	0.0250	0.0083	2471.67	2162.00	17.94
50	0.0200	0.0050	3043.33	2757.50	13.79
80	0.0125	0.0075	4752.33	3897.83	29.23
100	0.0100	0.0025	5853.33	5302.83	13.26
200	0.0050	0.0050			
TOTAL		0.9851			164.54

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: CUPICHE  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	366.67	183.33	18.33
20	0.0500	0.0500	937.67	652.17	32.61
30	0.0333	0.0167	1452.33	1195.00	19.96
40	0.0250	0.0083	1937.33	1694.83	14.07
50	0.0200	0.0050	2383.33	2160.33	10.80
80	0.0125	0.0075	3721.67	3052.50	22.89
100	0.0100	0.0025	4583.33	4152.50	10.38
200	0.0050	0.0050			
TOTAL		0.9851			129.04

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: RIO CANCHACALLA  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	453.33	226.67	22.67
20	0.0500	0.0500	1158.33	805.83	40.29
30	0.0333	0.0167	1793.33	1475.83	24.65
40	0.0250	0.0083	2392.00	2092.67	17.37
50	0.0200	0.0050	2940.00	2666.00	13.33
80	0.0125	0.0075	4592.00	3766.00	28.25
100	0.0100	0.0025	5656.67	5124.33	12.81
200	0.0050	0.0050			
TOTAL		0.9851			159.36

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: GUAYABO  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	343.33	171.67	17.17
20	0.0500	0.0500	878.00	610.67	30.53
30	0.0333	0.0167	1360.00	1119.00	18.69
40	0.0250	0.0083	1814.33	1587.17	13.17
50	0.0200	0.0050	2233.33	2023.83	10.12
80	0.0125	0.0075	3485.67	2859.50	21.45
100	0.0100	0.0025	4293.33	3889.50	9.72
200	0.0050	0.0050			
TOTAL		0.9851			120.85

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: AGUA SALADA  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	370.00	185.00	18.50
20	0.0500	0.0500	946.00	658.00	32.90
30	0.0333	0.0167	1465.00	1205.50	20.13
40	0.0250	0.0083	1954.00	1709.50	14.19
50	0.0200	0.0050	2403.33	2178.67	10.89
80	0.0125	0.0075	3753.00	3078.17	23.09
100	0.0100	0.0025	4623.33	4188.17	10.47
200	0.0050	0.0050			
TOTAL		0.9851			130.17

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: DEL PATE  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	350.00	175.00	17.50
20	0.0500	0.0500	894.67	622.33	31.12
30	0.0333	0.0167	1385.33	1140.00	19.04
40	0.0250	0.0083	1848.00	1616.67	13.42
50	0.0200	0.0050	2273.33	2060.67	10.30
80	0.0125	0.0075	3548.67	2911.00	21.83
100	0.0100	0.0025	4370.00	3959.33	9.90
200	0.0050	0.0050			
TOTAL		0.9851			123.11



Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: HUACRE  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	40.00	20.00	2.00
20	0.0500	0.0500	100.67	70.33	3.52
30	0.0333	0.0167	154.33	127.50	2.13
40	0.0250	0.0083	205.00	179.67	1.49
50	0.0200	0.0050	250.00	227.50	1.14
80	0.0125	0.0075	389.67	319.83	2.40
100	0.0100	0.0025	480.00	434.83	1.09
200	0.0050	0.0050			
TOTAL		0.9851			13.76

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: MATATA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	76.67	38.33	3.83
20	0.0500	0.0500	196.33	136.50	6.83
30	0.0333	0.0167	304.00	250.17	4.18
40	0.0250	0.0083	406.00	355.00	2.95
50	0.0200	0.0050	500.00	453.00	2.27
80	0.0125	0.0075	780.00	640.00	4.80
100	0.0100	0.0025	960.00	870.00	2.18
200	0.0050	0.0050			
TOTAL		0.9851			27.02

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: CUCHIMACHAY  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	143.33	71.67	7.17
20	0.0500	0.0500	368.00	255.67	12.78
30	0.0333	0.0167	571.33	469.67	7.84
40	0.0250	0.0083	763.00	667.17	5.54
50	0.0200	0.0050	940.00	851.50	4.26
80	0.0125	0.0075	1469.33	1204.67	9.04
100	0.0100	0.0025	1810.00	1639.67	4.10
200	0.0050	0.0050			
TOTAL		0.9851			50.72

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: CHUCUMAYO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	433.33	216.67	21.67
20	0.0500	0.0500	1108.33	770.83	38.54
30	0.0333	0.0167	1716.33	1412.33	23.59
40	0.0250	0.0083	2289.67	2003.00	16.62
50	0.0200	0.0050	2816.67	2553.17	12.77
80	0.0125	0.0075	4398.33	3607.50	27.06
100	0.0100	0.0025	5416.67	4907.50	12.27
200	0.0050	0.0050			
TOTAL		0.9851			152.51

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: CHACAHUACRA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	166.67	83.33	8.33
20	0.0500	0.0500	427.67	297.17	14.86
30	0.0333	0.0167	663.67	545.67	9.11
40	0.0250	0.0083	886.33	775.00	6.43
50	0.0200	0.0050	1093.33	989.83	4.95
80	0.0125	0.0075	1706.33	1399.83	10.50
100	0.0100	0.0025	2100.00	1903.17	4.76
200	0.0050	0.0050			
TOTAL		0.9851			58.94

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: PANCHA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	173.33	86.67	8.67
20	0.0500	0.0500	441.67	307.50	15.38
30	0.0333	0.0167	683.00	562.33	9.39
40	0.0250	0.0083	910.00	796.50	6.61
50	0.0200	0.0050	1116.67	1013.33	5.07
80	0.0125	0.0075	1744.00	1430.33	10.73
100	0.0100	0.0025	2150.00	1947.00	4.87
200	0.0050	0.0050			
TOTAL		0.9851			60.71

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: PARAC  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	340.00	170.00	17.00
20	0.0500	0.0500	870.00	605.00	30.25
30	0.0333	0.0167	1348.00	1109.00	18.52
40	0.0250	0.0083	1798.67	1573.33	13.06
50	0.0200	0.0050	2213.33	2006.00	10.03
80	0.0125	0.0075	3457.00	2835.17	21.26
100	0.0100	0.0025	4260.00	3858.50	9.65
200	0.0050	0.0050			
TOTAL		0.9851			119.77

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: VISO  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	170.00	85.00	8.50
20	0.0500	0.0500	435.00	302.50	15.13
30	0.0333	0.0167	673.67	554.33	9.26
40	0.0250	0.0083	899.00	786.33	6.53
50	0.0200	0.0050	1106.67	1002.83	5.01
80	0.0125	0.0075	1727.00	1416.83	10.63
100	0.0100	0.0025	2126.67	1926.83	4.82
200	0.0050	0.0050			
TOTAL		0.9851			59.87

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: REDONDA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	143.33	71.67	7.17
20	0.0500	0.0500	367.33	255.33	12.77
30	0.0333	0.0167	569.67	468.50	7.82
40	0.0250	0.0083	760.67	665.17	5.52
50	0.0200	0.0050	936.67	848.67	4.24
80	0.0125	0.0075	1463.67	1200.17	9.00
100	0.0100	0.0025	1803.33	1633.50	4.08
200	0.0050	0.0050			
TOTAL		0.9851			50.61

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: INFIERNILLO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	90.00	45.00	4.50
20	0.0500	0.0500	231.67	160.83	8.04
30	0.0333	0.0167	360.00	295.83	4.94
40	0.0250	0.0083	481.00	420.50	3.49
50	0.0200	0.0050	593.33	537.17	2.69
80	0.0125	0.0075	928.00	760.67	5.71
100	0.0100	0.0025	1143.33	1035.67	2.59
200	0.0050	0.0050			
TOTAL		0.9851			31.95

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Qda. No.: LUCUMA  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	90.00	45.00	4.50
20	0.0500	0.0500	231.67	160.83	8.04
30	0.0333	0.0167	359.67	295.67	4.94
40	0.0250	0.0083	480.33	420.00	3.49
50	0.0200	0.0050	593.33	536.83	2.68
80	0.0125	0.0075	926.33	759.83	5.70
100	0.0100	0.0025	1140.00	1033.17	2.58
200	0.0050	0.0050			
TOTAL		0.9851			31.93

IV-2 Annual Benefit for Spe Areas





Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: RIVER MOUTH - JICAMARCA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	523.33	261.67	26.17
20	0.0500	0.0500	1339.67	931.50	46.58
30	0.0333	0.0167	2075.67	1707.67	28.52
40	0.0250	0.0083	2770.00	2422.83	20.11
50	0.0200	0.0050	3410.00	3090.00	15.45
80	0.0125	0.0075	5324.33	4367.17	32.75
100	0.0100	0.0025	6560.00	5942.17	14.86
200	0.0050	0.0050			
TOTAL		0.9851			184.43

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: RIVER MOUTH - CHACLACAYO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	490.00	245.00	24.50
20	0.0500	0.0500	1253.33	871.67	43.58
30	0.0333	0.0167	1941.33	1597.33	26.68
40	0.0250	0.0083	2589.67	2265.50	18.80
50	0.0200	0.0050	3186.67	2888.17	14.44
80	0.0125	0.0075	4975.00	4080.83	30.61
100	0.0100	0.0025	6126.67	5550.83	13.88
200	0.0050	0.0050			
TOTAL		0.9851			172.49

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: JICAMARCA - CHACRASANA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	6.67	3.33	0.33
20	0.0500	0.0500	18.67	12.67	0.63
30	0.0333	0.0167	30.00	24.33	0.41
40	0.0250	0.0083	40.67	35.33	0.29
50	0.0200	0.0050	53.33	47.00	0.24
80	0.0125	0.0075	82.67	68.00	0.51
100	0.0100	0.0025	100.00	91.33	0.23
200	0.0050	0.0050			
TOTAL		0.9851			2.64

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CHACLACAYO - CALIFORNIA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	13.33	6.67	0.67
20	0.0500	0.0500	35.67	24.50	1.23
30	0.0333	0.0167	56.33	46.00	0.77
40	0.0250	0.0083	76.00	66.17	0.55
50	0.0200	0.0050	96.67	86.33	0.43
80	0.0125	0.0075	150.00	123.33	0.93
100	0.0100	0.0025	183.33	166.67	0.42
200	0.0050	0.0050			
TOTAL		0.9851			4.98

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: SANTA MARCA - QUIRIO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	3.33	1.67	0.17
20	0.0500	0.0500	4.17	3.75	0.19
30	0.0333	0.0167	5.00	4.58	0.08
40	0.0250	0.0083	5.83	5.42	0.04
50	0.0200	0.0050	6.67	6.25	0.03
80	0.0125	0.0075	13.33	10.00	0.08
100	0.0100	0.0025	16.67	15.00	0.04
200	0.0050	0.0050			
TOTAL		0.9851			0.62

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: LA CONTUTA - LA RONDA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	16.67	8.33	0.83
20	0.0500	0.0500	41.67	29.17	1.46
30	0.0333	0.0167	64.00	52.83	0.88
40	0.0250	0.0083	84.67	74.33	0.62
50	0.0200	0.0050	103.33	94.00	0.47
80	0.0125	0.0075	160.00	131.67	0.99
100	0.0100	0.0025	196.67	178.33	0.45
200	0.0050	0.0050			
TOTAL		0.9851			5.69

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: PEDREGAL - CAROSIO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	20.00	10.00	1.00
20	0.0500	0.0500	52.67	36.33	1.82
30	0.0333	0.0167	82.67	67.67	1.13
40	0.0250	0.0083	111.33	97.00	0.81
50	0.0200	0.0050	140.00	125.67	0.63
80	0.0125	0.0075	218.00	179.00	1.34
100	0.0100	0.0025	266.67	242.33	0.61
200	0.0050	0.0050			
TOTAL		0.9851			7.33

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CAROSIO - CORRALES  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	10.00	5.00	0.50
20	0.0500	0.0500	26.00	18.00	0.90
30	0.0333	0.0167	40.33	33.17	0.55
40	0.0250	0.0083	54.00	47.17	0.39
50	0.0200	0.0050	66.67	60.33	0.30
80	0.0125	0.0075	105.00	85.83	0.64
100	0.0100	0.0025	130.00	117.50	0.29
200	0.0050	0.0050			
TOTAL		0.9851			3.58

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CORRALES - CASHAHUACRA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	6.67	3.33	0.33
20	0.0500	0.0500	16.67	11.67	0.58
30	0.0333	0.0167	25.33	21.00	0.35
40	0.0250	0.0083	33.67	29.50	0.24
50	0.0200	0.0050	40.00	36.83	0.18
80	0.0125	0.0075	64.00	52.00	0.39
100	0.0100	0.0025	80.00	72.00	0.18
200	0.0050	0.0050			
TOTAL		0.9851			2.27

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: LA RONDA - CONFLUENCE  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	3.33	1.67	0.17
20	0.0500	0.0500	5.00	4.17	0.21
30	0.0333	0.0167	5.67	5.33	0.09
40	0.0250	0.0083	6.33	6.00	0.05
50	0.0200	0.0050	6.67	6.50	0.03
80	0.0125	0.0075	8.67	7.67	0.06
100	0.0100	0.0025	10.00	9.33	0.02
200	0.0050	0.0050			
TOTAL		0.9851			0.63

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CONFLUENCE - SANTA ANA  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	36.67	18.33	1.83
20	0.0500	0.0500	93.67	65.17	3.26
30	0.0333	0.0167	144.67	119.17	1.99
40	0.0250	0.0083	193.00	168.83	1.40
50	0.0200	0.0050	236.67	214.83	1.07
80	0.0125	0.0075	370.33	303.50	2.28
100	0.0100	0.0025	456.67	413.50	1.03
200	0.0050	0.0050			
TOTAL		0.9851			12.87

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CONFLUENCE - SAN JUAN  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	16.67	8.33	0.83
20	0.0500	0.0500	43.00	29.83	1.49
30	0.0333	0.0167	66.67	54.83	0.92
40	0.0250	0.0083	89.33	78.00	0.65
50	0.0200	0.0050	110.00	99.67	0.50
80	0.0125	0.0075	172.67	141.33	1.06
100	0.0100	0.0025	213.33	193.00	0.48
200	0.0050	0.0050			
TOTAL		0.9851			5.93

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CUPICHE - GUAYABO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	73.33	36.67	3.67
20	0.0500	0.0500	188.67	131.00	6.55
30	0.0333	0.0167	292.67	240.67	4.02
40	0.0250	0.0083	391.00	341.83	2.84
50	0.0200	0.0050	483.33	437.17	2.19
80	0.0125	0.0075	753.33	618.33	4.64
100	0.0100	0.0025	926.67	840.00	2.10
200	0.0050	0.0050			
TOTAL		0.9851			26.00

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: RIO SECO - ESPERANZA  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	13.33	6.67	0.67
20	0.0500	0.0500	32.33	22.83	1.14
30	0.0333	0.0167	48.67	40.50	0.68
40	0.0250	0.0083	64.00	56.33	0.47
50	0.0200	0.0050	76.67	70.33	0.35
80	0.0125	0.0075	119.00	97.83	0.73
100	0.0100	0.0025	146.67	132.83	0.33
200	0.0050	0.0050			
TOTAL		0.9851			4.37

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: ESPERANZA - VERRUGAS  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	3.33	1.67	0.17
20	0.0500	0.0500	6.00	4.67	0.23
30	0.0333	0.0167	7.67	6.83	0.11
40	0.0250	0.0083	9.33	8.50	0.07
50	0.0200	0.0050	10.00	9.67	0.05
80	0.0125	0.0075	14.00	12.00	0.09
100	0.0100	0.0025	16.67	15.33	0.04
200	0.0050	0.0050			
TOTAL		0.9851			0.76

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: VERRUGAS - HUACRE  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	13.33	6.67	0.67
20	0.0500	0.0500	35.00	24.17	1.21
30	0.0333	0.0167	54.67	44.83	0.75
40	0.0250	0.0083	73.33	64.00	0.53
50	0.0200	0.0050	93.33	83.33	0.42
80	0.0125	0.0075	143.00	118.17	0.89
100	0.0100	0.0025	173.33	158.17	0.40
200	0.0050	0.0050			
TOTAL		0.9851			4.85



Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: LINDAY - YAMAJUNE  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	6.67	3.33	0.33
20	0.0500	0.0500	16.67	11.67	0.58
30	0.0333	0.0167	25.33	21.00	0.35
40	0.0250	0.0083	33.67	29.50	0.24
50	0.0200	0.0050	40.00	36.83	0.18
80	0.0125	0.0075	64.00	52.00	0.39
100	0.0100	0.0025	80.00	72.00	0.18
200	0.0050	0.0050			
TOTAL		0.9851			2.27

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CHACAMAZA - BARRANCO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	3.33	1.67	0.17
20	0.0500	0.0500	4.33	3.83	0.19
30	0.0333	0.0167	5.00	4.67	0.08
40	0.0250	0.0083	5.67	5.33	0.04
50	0.0200	0.0050	6.67	6.17	0.03
80	0.0125	0.0075	10.33	8.50	0.06
100	0.0100	0.0025	13.33	11.83	0.03
200	0.0050	0.0050			
TOTAL		0.9851			0.60

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CHUCUMAYO - CHACAHUARO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	60.00	30.00	3.00
20	0.0500	0.0500	154.00	107.00	5.35
30	0.0333	0.0167	239.00	196.50	3.28
40	0.0250	0.0083	319.00	279.00	2.32
50	0.0200	0.0050	393.33	356.17	1.78
80	0.0125	0.0075	614.33	503.83	3.78
100	0.0100	0.0025	756.67	685.50	1.71
200	0.0050	0.0050			
TOTAL		0.9851			21.22

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: PARAC - RIO BLANCO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	100.00	50.00	5.00
20	0.0500	0.0500	256.33	178.17	8.91
30	0.0333	0.0167	397.67	327.00	5.46
40	0.0250	0.0083	531.00	464.33	3.85
50	0.0200	0.0050	653.33	592.17	2.96
80	0.0125	0.0075	1022.00	837.67	6.28
100	0.0100	0.0025	1260.00	1141.00	2.85
200	0.0050	0.0050			
TOTAL		0.9851			35.32

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CONFLUENCE - ALCULA  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	20.00	10.00	1.00
20	0.0500	0.0500	50.33	35.17	1.76
30	0.0333	0.0167	77.67	64.00	1.07
40	0.0250	0.0083	103.00	90.33	0.75
50	0.0200	0.0050	126.67	114.83	0.57
80	0.0125	0.0075	196.00	161.33	1.21
100	0.0100	0.0025	240.00	218.00	0.55
200	0.0050	0.0050			
TOTAL		0.9851			6.91

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: CASHAHUACRA - REDONDA  
 Case :

Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	13.33	6.67	0.67
20	0.0500	0.0500	33.67	23.50	1.18
30	0.0333	0.0167	51.67	42.67	0.71
40	0.0250	0.0083	68.33	60.00	0.50
50	0.0200	0.0050	83.33	75.83	0.38
80	0.0125	0.0075	130.00	106.67	0.80
100	0.0100	0.0025	160.00	145.00	0.36
200	0.0050	0.0050			
TOTAL		0.9851			4.59

Table ESTIMATION OF EXPECTED MEAN ANNUAL DAMAGE OF DEBLIS FLOW  
 Spe. No.: REDONDA - INFIERNILLO  
 Case : Unit : US\$ 10<sup>3</sup>

Return period	Probability	Incremental value	Deblis flow damage	Averaged deblis flow damage	Incremental deblis flow damage
1.01	0.9901	-	-	-	-
1.5	0.6667	0.3234	0.00	0.00	0.00
2	0.5000	0.1667	0.00	0.00	0.00
5	0.2000	0.3000	0.00	0.00	0.00
10	0.1000	0.1000	10.00	5.00	0.50
20	0.0500	0.0500	27.67	18.83	0.94
30	0.0333	0.0167	44.33	36.00	0.60
40	0.0250	0.0083	60.33	52.33	0.43
50	0.0200	0.0050	76.67	68.50	0.34
80	0.0125	0.0075	121.67	99.17	0.74
100	0.0100	0.0025	150.00	135.83	0.34
200	0.0050	0.0050			
TOTAL		0.9851			3.90

IV-3 EIRR Calculation for Qda Areas



Table  
 Name of Quebrada : CHACLACAYO Economic development rate : 3%/year  
 E.I.R.R. = 8.9914 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	1,889.6		1,889.6	1,733.8		0.0	(1,733.8)
2 1991/1992	3,779.3		3,779.3	3,181.4		0.0	(3,181.4)
3 1992/1993	1,889.6	23.6	1,913.3	1,477.7	347.0	268.0	(1,209.7)
4 1993/1994	1,889.6	23.6	1,913.3	1,355.8	347.0	245.9	(1,109.9)
5 1994/1995		47.2	47.2	30.7	694.1	451.3	420.6
6 1995/1996		47.2	47.2	28.2	714.9	426.5	398.3
7 1996/1997		47.2	47.2	25.9	736.3	403.0	377.2
8 1997/1998		47.2	47.2	23.7	758.4	380.9	357.1
9 1998/1999		47.2	47.2	21.8	781.2	359.9	338.2
10 1999/2000		47.2	47.2	20.0	804.6	340.1	320.2
11 2000/2001		47.2	47.2	18.3	828.7	321.4	303.1
12 2001/2002		47.2	47.2	16.8	853.6	303.8	287.0
13 2002/2003		47.2	47.2	15.4	879.2	287.1	271.7
14 2003/2004		47.2	47.2	14.2	905.6	271.3	257.1
15 2004/2005		47.2	47.2	13.0	932.8	256.4	243.4
16 2005/2006		47.2	47.2	11.9	960.7	242.3	230.4
17 2006/2007		47.2	47.2	10.9	989.6	229.0	218.0
18 2007/2008		47.2	47.2	10.0	1,019.3	216.4	206.4
19 2008/2009		47.2	47.2	9.2	1,049.8	204.5	195.3
20 2009/2010		47.2	47.2	8.4	1,081.3	193.2	184.8
21 2010/2011		47.2	47.2	7.7	1,113.8	182.6	174.9
22 2011/2012		47.2	47.2	7.1	1,147.2	172.6	165.5
23 2012/2013		47.2	47.2	6.5	1,181.6	163.1	156.6
24 2013/2014		47.2	47.2	6.0	1,217.0	154.1	148.1
25 2014/2015		47.2	47.2	5.5	1,253.6	145.7	140.2
26 2015/2016		47.2	47.2	5.0	1,291.2	137.7	132.6
27 2016/2017		47.2	47.2	4.6	1,329.9	130.1	125.5
28 2017/2018		47.2	47.2	4.2	1,369.8	122.9	118.7
29 2018/2019		47.2	47.2	3.9	1,410.9	116.2	112.3
30 2019/2020		47.2	47.2	3.6	1,453.2	109.8	106.2
31 2020/2021		47.2	47.2	3.3	1,496.8	103.8	100.5
32 2021/2022		47.2	47.2	3.0	1,541.7	98.1	95.0
33 2022/2023		47.2	47.2	2.8	1,588.0	92.7	89.9
34 2023/2024		47.2	47.2	2.5	1,635.6	87.6	85.0
35 2024/2025		47.2	47.2	2.3	1,684.7	82.8	80.4
36 2025/2026		47.2	47.2	2.1	1,735.2	78.2	76.1
37 2026/2027		47.2	47.2	2.0	1,787.3	73.9	72.0
38 2027/2028		47.2	47.2	1.8	1,840.9	69.8	68.1
39 2028/2029		47.2	47.2	1.6	1,896.1	66.0	64.4
40 2029/2030		47.2	47.2	1.5	1,953.0	62.4	60.9
41 2030/2031		47.2	47.2	1.4	2,011.6	58.9	57.6
42 2031/2032		47.2	47.2	1.3	2,071.9	55.7	54.4
43 2032/2033		47.2	47.2	1.2	2,134.1	52.6	51.5
44 2033/2034		47.2	47.2	1.1	2,198.1	49.7	48.7
45 2034/2035		47.2	47.2	1.0	2,264.1	47.0	46.0
46 2035/2036		47.2	47.2	0.9	2,332.0	44.4	43.5
47 2036/2037		47.2	47.2	0.8	2,401.9	42.0	41.2 B - C =
48 2037/2038		47.2	47.2	0.8	2,474.0	39.7	38.9 0.0
49 2038/2039		47.2	47.2	0.7	2,548.2	37.5	36.8
50 2039/2040		47.2	47.2	0.6	2,624.7	35.4	34.8 B / C =
Total	9,448.2	2,220.3	11,668.5	8,114.0	67,672.2	8,114.0	(0.0)

1.00

Table

Name of Quebrada : CHACRASANA Economic development rate : 3%/year  
 E.I.R.R. = 3.1860 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	COST STREAM			BENEFIT STREAM			
	Const- ruction Cost	O & M Cost	Discounted Cost Total	Discounted Total Cost	Annual Benefit	Discounted Total Benefit	Net Present Worth
1 1990/1991	906.8		906.8	878.8		0.0	(878.8)
2 1991/1992	1,813.6		1,813.6	1,703.3		0.0	(1,703.3)
3 1992/1993	906.8	11.3	918.1	835.7	60.9	55.4	(780.3)
4 1993/1994	906.8	11.3	918.1	809.9	60.9	53.7	(756.2)
5 1994/1995		22.7	22.7	19.4	121.7	104.1	84.7
6 1995/1996		22.7	22.7	18.8	125.4	103.9	85.1
7 1996/1997		22.7	22.7	18.2	129.2	103.7	85.5
8 1997/1998		22.7	22.7	17.6	133.0	103.5	85.9
9 1998/1999		22.7	22.7	17.1	137.0	103.3	86.2
10 1999/2000		22.7	22.7	16.6	141.1	103.1	86.6
11 2000/2001		22.7	22.7	16.1	145.4	102.9	86.9
12 2001/2002		22.7	22.7	15.6	149.7	102.8	87.2
13 2002/2003		22.7	22.7	15.1	154.2	102.6	87.5
14 2003/2004		22.7	22.7	14.6	158.8	102.4	87.8
15 2004/2005		22.7	22.7	14.2	163.6	102.2	88.0
16 2005/2006		22.7	22.7	13.7	168.5	102.0	88.3
17 2006/2007		22.7	22.7	13.3	173.6	101.8	88.5
18 2007/2008		22.7	22.7	12.9	178.8	101.7	88.8
19 2008/2009		22.7	22.7	12.5	184.1	101.5	89.0
20 2009/2010		22.7	22.7	12.1	189.7	101.3	89.2
21 2010/2011		22.7	22.7	11.7	195.4	101.1	89.4
22 2011/2012		22.7	22.7	11.4	201.2	100.9	89.6
23 2012/2013		22.7	22.7	11.0	207.2	100.7	89.7
24 2013/2014		22.7	22.7	10.7	213.5	100.6	89.9
25 2014/2015		22.7	22.7	10.3	219.9	100.4	90.0
26 2015/2016		22.7	22.7	10.0	226.5	100.2	90.2
27 2016/2017		22.7	22.7	9.7	233.3	100.0	90.3
28 2017/2018		22.7	22.7	9.4	240.3	99.8	90.4
29 2018/2019		22.7	22.7	9.1	247.5	99.7	90.5
30 2019/2020		22.7	22.7	8.8	254.9	99.5	90.6
31 2020/2021		22.7	22.7	8.6	262.5	99.3	90.7
32 2021/2022		22.7	22.7	8.3	270.4	99.1	90.8
33 2022/2023		22.7	22.7	8.1	278.5	98.9	90.9
34 2023/2024		22.7	22.7	7.8	286.9	98.8	91.0
35 2024/2025		22.7	22.7	7.6	295.5	98.6	91.0
36 2025/2026		22.7	22.7	7.3	304.4	98.4	91.1
37 2026/2027		22.7	22.7	7.1	313.5	98.2	91.1
38 2027/2028		22.7	22.7	6.9	322.9	98.1	91.2
39 2028/2029		22.7	22.7	6.7	332.6	97.9	91.2
40 2029/2030		22.7	22.7	6.5	342.6	97.7	91.2
41 2030/2031		22.7	22.7	6.3	352.8	97.5	91.3
42 2031/2032		22.7	22.7	6.1	363.4	97.3	91.3
43 2032/2033		22.7	22.7	5.9	374.3	97.2	91.3
44 2033/2034		22.7	22.7	5.7	385.5	97.0	91.3
45 2034/2035		22.7	22.7	5.5	397.1	96.8	91.3
46 2035/2036		22.7	22.7	5.4	409.0	96.6	91.3
47 2036/2037		22.7	22.7	5.2	421.3	96.5	91.3 B - C =
48 2037/2038		22.7	22.7	5.0	433.9	96.3	91.3 0.0
49 2038/2039		22.7	22.7	4.9	447.0	96.1	91.2
50 2039/2040		22.7	22.7	4.7	460.4	96.0	91.2 B / C =
Total	4,534.0	1,065.5	5,599.5	4,707.0	11,869.5	4,707.1	0.0

1.00



Name of Quebrada : CALIFORNIA Economic development rate : 3%/year  
 E.I.R.R. = 4.7884 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical	Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
				Cost	Total	Annual Benefit	Total Benefit	
1	1990/1991	1,620.3		1,620.3	1,546.3		0.0	(1,546.3)
2	1991/1992	3,240.6		3,240.6	2,951.2		0.0	(2,951.2)
3	1992/1993	1,620.3	20.3	1,640.6	1,425.8	150.7	131.0	(1,294.8)
4	1993/1994	1,620.3	20.3	1,640.6	1,360.6	150.7	125.0	(1,235.6)
5	1994/1995		40.5	40.5	32.1	301.5	238.6	206.6
6	1995/1996		40.5	40.5	30.6	310.5	234.5	204.0
7	1996/1997		40.5	40.5	29.2	319.9	230.5	201.3
8	1997/1998		40.5	40.5	27.9	329.4	226.6	198.7
9	1998/1999		40.5	40.5	26.6	339.3	222.7	196.2
10	1999/2000		40.5	40.5	25.4	349.5	218.9	193.6
11	2000/2001		40.5	40.5	24.2	360.0	215.2	191.0
12	2001/2002		40.5	40.5	23.1	370.8	211.5	188.4
13	2002/2003		40.5	40.5	22.1	381.9	207.9	185.9
14	2003/2004		40.5	40.5	21.0	393.4	204.4	183.3
15	2004/2005		40.5	40.5	20.1	405.2	200.9	180.8
16	2005/2006		40.5	40.5	19.2	417.3	197.5	178.3
17	2006/2007		40.5	40.5	18.3	429.9	194.1	175.8
18	2007/2008		40.5	40.5	17.5	442.8	190.8	173.3
19	2008/2009		40.5	40.5	16.7	456.0	187.5	170.9
20	2009/2010		40.5	40.5	15.9	469.7	184.3	168.4
21	2010/2011		40.5	40.5	15.2	483.8	181.2	166.0
22	2011/2012		40.5	40.5	14.5	498.3	178.1	163.6
23	2012/2013		40.5	40.5	13.8	513.3	175.0	161.2
24	2013/2014		40.5	40.5	13.2	528.7	172.1	158.9
25	2014/2015		40.5	40.5	12.6	544.5	169.1	156.5
26	2015/2016		40.5	40.5	12.0	560.9	166.2	154.2
27	2016/2017		40.5	40.5	11.5	577.7	163.4	151.9
28	2017/2018		40.5	40.5	10.9	595.0	160.6	149.7
29	2018/2019		40.5	40.5	10.4	612.9	157.9	147.4
30	2019/2020		40.5	40.5	10.0	631.3	155.2	145.2
31	2020/2021		40.5	40.5	9.5	650.2	152.5	143.0
32	2021/2022		40.5	40.5	9.1	669.7	149.9	140.9
33	2022/2023		40.5	40.5	8.7	689.8	147.4	138.7
34	2023/2024		40.5	40.5	8.3	710.5	144.8	136.6
35	2024/2025		40.5	40.5	7.9	731.8	142.4	134.5
36	2025/2026		40.5	40.5	7.5	753.8	139.9	132.4
37	2026/2027		40.5	40.5	7.2	776.4	137.6	130.4
38	2027/2028		40.5	40.5	6.8	799.7	135.2	128.4
39	2028/2029		40.5	40.5	6.5	823.6	132.9	126.4
40	2029/2030		40.5	40.5	6.2	848.4	130.6	124.4
41	2030/2031		40.5	40.5	6.0	873.8	128.4	122.5
42	2031/2032		40.5	40.5	5.7	900.0	126.2	120.5
43	2032/2033		40.5	40.5	5.4	927.0	124.1	118.6
44	2033/2034		40.5	40.5	5.2	954.8	121.9	116.8
45	2034/2035		40.5	40.5	4.9	983.5	119.9	114.9
46	2035/2036		40.5	40.5	4.7	1,013.0	117.8	113.1
47	2036/2037		40.5	40.5	4.5	1,043.4	115.8	111.3 B - C =
48	2037/2038		40.5	40.5	4.3	1,074.7	113.8	109.5 0.0
49	2038/2039		40.5	40.5	4.1	1,106.9	111.9	107.8
50	2039/2040		40.5	40.5	3.9	1,140.1	110.0	106.1 B / C =
Total		8,101.6	1,903.9	10,005.5	7,904.0	29,395.8	7,904.0	(0.0) 1.00

2025

Name of Quebrada : SANTA MARIA Economic development rate : 3%/year  
 E.I.R.R. = 3.3887 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	COST STREAM			BENEFIT STREAM			
	Const- ruction Cost	O & M Cost	Cost Total	Discounted Total Cost	Discounted Annual Benefit	Discounted Total Benefit	Net Present Worth
1 1990/1991	887.3		887.3	858.2		0.0	(858.2)
2 1991/1992	1,774.5		1,774.5	1,660.1		0.0	(1,660.1)
3 1992/1993	887.3	11.1	898.4	812.9	62.2	56.3	(756.6)
4 1993/1994	887.3	11.1	898.4	786.2	62.2	54.4	(731.8)
5 1994/1995		22.2	22.2	18.8	124.4	105.3	86.5
6 1995/1996		22.2	22.2	18.2	128.1	104.9	86.7
7 1996/1997		22.2	22.2	17.6	132.0	104.5	86.9
8 1997/1998		22.2	22.2	17.0	135.9	104.1	87.1
9 1998/1999		22.2	22.2	16.4	140.0	103.7	87.3
10 1999/2000		22.2	22.2	15.9	144.2	103.3	87.4
11 2000/2001		22.2	22.2	15.4	148.5	103.0	87.6
12 2001/2002		22.2	22.2	14.9	153.0	102.6	87.7
13 2002/2003		22.2	22.2	14.4	157.6	102.2	87.8
14 2003/2004		22.2	22.2	13.9	162.3	101.8	87.9
15 2004/2005		22.2	22.2	13.5	167.2	101.4	88.0
16 2005/2006		22.2	22.2	13.0	172.2	101.0	88.0
17 2006/2007		22.2	22.2	12.6	177.4	100.6	88.1
18 2007/2008		22.2	22.2	12.2	182.7	100.3	88.1
19 2008/2009		22.2	22.2	11.8	188.2	99.9	88.1
20 2009/2010		22.2	22.2	11.4	193.8	99.5	88.1
21 2010/2011		22.2	22.2	11.0	199.6	99.1	88.1
22 2011/2012		22.2	22.2	10.7	205.6	98.8	88.1
23 2012/2013		22.2	22.2	10.3	211.8	98.4	88.1
24 2013/2014		22.2	22.2	10.0	218.1	98.0	88.1
25 2014/2015		22.2	22.2	9.6	224.7	97.7	88.0
26 2015/2016		22.2	22.2	9.3	231.4	97.3	88.0
27 2016/2017		22.2	22.2	9.0	238.4	96.9	87.9
28 2017/2018		22.2	22.2	8.7	245.5	96.6	87.8
29 2018/2019		22.2	22.2	8.4	252.9	96.2	87.8
30 2019/2020		22.2	22.2	8.2	260.5	95.8	87.7
31 2020/2021		22.2	22.2	7.9	268.3	95.5	87.6
32 2021/2022		22.2	22.2	7.6	276.3	95.1	87.5
33 2022/2023		22.2	22.2	7.4	284.6	94.8	87.4
34 2023/2024		22.2	22.2	7.1	293.1	94.4	87.3
35 2024/2025		22.2	22.2	6.9	301.9	94.1	87.1
36 2025/2026		22.2	22.2	6.7	311.0	93.7	87.0
37 2026/2027		22.2	22.2	6.5	320.3	93.3	86.9
38 2027/2028		22.2	22.2	6.3	329.9	93.0	86.7
39 2028/2029		22.2	22.2	6.0	339.8	92.6	86.6
40 2029/2030		22.2	22.2	5.8	350.0	92.3	86.4
41 2030/2031		22.2	22.2	5.7	360.5	92.0	86.3
42 2031/2032		22.2	22.2	5.5	371.4	91.6	86.1
43 2032/2033		22.2	22.2	5.3	382.5	91.3	86.0
44 2033/2034		22.2	22.2	5.1	394.0	90.9	85.8
45 2034/2035		22.2	22.2	5.0	405.8	90.6	85.6
46 2035/2036		22.2	22.2	4.8	418.0	90.2	85.4
47 2036/2037		22.2	22.2	4.6	430.5	89.9	85.3 B - C =
48 2037/2038		22.2	22.2	4.5	443.4	89.6	85.1 0.0
49 2038/2039		22.2	22.2	4.3	456.7	89.2	84.9
50 2039/2040		22.2	22.2	4.2	470.4	88.9	84.7 B / C =
<b>Total</b>	<b>4,436.3</b>	<b>1,042.5</b>	<b>5,478.8</b>	<b>4,566.6</b>	<b>12,128.9</b>	<b>4,566.6</b>	<b>0.0</b>

Name of Quebrada : LA CANTUTA Economic development rate : 3%/year  
 E.I.R.R. = -0.2439 % Unit : US\$ 10<sup>3</sup>

COST STREAM				BENEFIT STREAM				
Year	Fiscal Year	Const- ruction Cost	O & M Cost	Discounted		Annual Benefit	Discounted Total Benefit	Net Present Worth
				Cost Total	Cost			
1	1990/1991	2,893.1		2,893.1	2,900.2		0.0	(2,900.2)
2	1991/1992	5,786.2		5,786.2	5,814.5		0.0	(5,814.5)
3	1992/1993	2,893.1	36.2	2,929.3	2,950.8	86.1	86.8	(2,864.0)
4	1993/1994	2,893.1	36.2	2,929.3	2,958.0	86.1	87.0	(2,871.0)
5	1994/1995		72.3	72.3	73.2	172.3	174.4	101.2
6	1995/1996		72.3	72.3	73.4	177.4	180.1	106.7
7	1996/1997		72.3	72.3	73.6	182.8	185.9	112.3
8	1997/1998		72.3	72.3	73.8	188.3	192.0	118.2
9	1998/1999		72.3	72.3	73.9	193.9	198.2	124.3
10	1999/2000		72.3	72.3	74.1	199.7	204.7	130.5
11	2000/2001		72.3	72.3	74.3	205.7	211.3	137.0
12	2001/2002		72.3	72.3	74.5	211.9	218.2	143.7
13	2002/2003		72.3	72.3	74.7	218.2	225.3	150.6
14	2003/2004		72.3	72.3	74.8	224.8	232.6	157.8
15	2004/2005		72.3	72.3	75.0	231.5	240.2	165.1
16	2005/2006		72.3	72.3	75.2	238.5	248.0	172.8
17	2006/2007		72.3	72.3	75.4	245.6	256.0	180.7
18	2007/2008		72.3	72.3	75.6	253.0	264.4	188.8
19	2008/2009		72.3	72.3	75.8	260.6	273.0	197.2
20	2009/2010		72.3	72.3	75.9	268.4	281.8	205.9
21	2010/2011		72.3	72.3	76.1	276.5	291.0	214.9
22	2011/2012		72.3	72.3	76.3	284.8	300.5	224.2
23	2012/2013		72.3	72.3	76.5	293.3	310.2	233.7
24	2013/2014		72.3	72.3	76.7	302.1	320.3	243.6
25	2014/2015		72.3	72.3	76.9	311.2	330.7	253.9
26	2015/2016		72.3	72.3	77.1	320.5	341.5	264.4
27	2016/2017		72.3	72.3	77.3	330.1	352.6	275.4
28	2017/2018		72.3	72.3	77.4	340.0	364.1	286.6
29	2018/2019		72.3	72.3	77.6	350.2	375.9	298.3
30	2019/2020		72.3	72.3	77.8	360.7	388.1	310.3
31	2020/2021		72.3	72.3	78.0	371.5	400.8	322.7
32	2021/2022		72.3	72.3	78.2	382.7	413.8	335.6
33	2022/2023		72.3	72.3	78.4	394.2	427.3	348.9
34	2023/2024		72.3	72.3	78.6	406.0	441.1	362.6
35	2024/2025		72.3	72.3	78.8	418.2	455.5	376.7
36	2025/2026		72.3	72.3	79.0	430.7	470.3	391.3
37	2026/2027		72.3	72.3	79.2	443.6	485.6	406.4
38	2027/2028		72.3	72.3	79.4	456.9	501.4	422.0
39	2028/2029		72.3	72.3	79.6	470.7	517.7	438.1
40	2029/2030		72.3	72.3	79.8	484.8	534.5	454.8
41	2030/2031		72.3	72.3	79.9	499.3	551.9	472.0
42	2031/2032		72.3	72.3	80.1	514.3	569.9	489.7
43	2032/2033		72.3	72.3	80.3	529.7	588.4	508.0
44	2033/2034		72.3	72.3	80.5	545.6	607.5	527.0
45	2034/2035		72.3	72.3	80.7	562.0	627.3	546.5
46	2035/2036		72.3	72.3	80.9	578.8	647.7	566.7
47	2036/2037		72.3	72.3	81.1	596.2	668.7	587.6 B - C =
48	2037/2038		72.3	72.3	81.3	614.1	690.5	609.2 0.0
49	2038/2039		72.3	72.3	81.5	632.5	712.9	631.4
50	2039/2040		72.3	72.3	81.7	651.5	736.1	654.4 B / C =
1.00								
Total		14,465.5	3,399.4	17,864.9	18,183.6	16,797.6	18,183.6	0.0

Name of Quebrada : LA RONDA Economic development rate : 3%/year  
 E.I.R.R. = 2.3060 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	Discounted			Discounted		Net Present Worth
		O & M Cost	Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	1,735.4		1,735.4	1,696.3		0.0	(1,696.3)
2 1991/1992	3,470.8		3,470.8	3,316.1		0.0	(3,316.1)
3 1992/1993	1,735.4	21.7	1,757.1	1,641.0	95.8	89.5	(1,551.5)
4 1993/1994	1,735.4	21.7	1,757.1	1,604.0	95.8	87.5	(1,516.5)
5 1994/1995		43.4	43.4	38.7	191.7	171.0	132.3
6 1995/1996		43.4	43.4	37.8	197.4	172.2	134.3
7 1996/1997		43.4	43.4	37.0	203.3	173.3	136.4
8 1997/1998		43.4	43.4	36.2	209.4	174.5	138.4
9 1998/1999		43.4	43.4	35.3	215.7	175.7	140.4
10 1999/2000		43.4	43.4	34.5	222.2	176.9	142.4
11 2000/2001		43.4	43.4	33.8	228.9	178.1	144.3
12 2001/2002		43.4	43.4	33.0	235.7	179.3	146.3
13 2002/2003		43.4	43.4	32.3	242.8	180.5	148.3
14 2003/2004		43.4	43.4	31.5	250.1	181.7	150.2
15 2004/2005		43.4	43.4	30.8	257.6	183.0	152.2
16 2005/2006		43.4	43.4	30.1	265.3	184.2	154.1
17 2006/2007		43.4	43.4	29.4	273.3	185.5	156.0
18 2007/2008		43.4	43.4	28.8	281.5	186.7	157.9
19 2008/2009		43.4	43.4	28.1	289.9	188.0	159.9
20 2009/2010		43.4	43.4	27.5	298.6	189.3	161.8
21 2010/2011		43.4	43.4	26.9	307.6	190.6	163.7
22 2011/2012		43.4	43.4	26.3	316.8	191.8	165.6
23 2012/2013		43.4	43.4	25.7	326.3	193.1	167.5
24 2013/2014		43.4	43.4	25.1	336.1	194.5	169.4
25 2014/2015		43.4	43.4	24.5	346.2	195.8	171.2
26 2015/2016		43.4	43.4	24.0	356.5	197.1	173.1
27 2016/2017		43.4	43.4	23.4	367.2	198.4	175.0
28 2017/2018		43.4	43.4	22.9	378.3	199.8	176.9
29 2018/2019		43.4	43.4	22.4	389.6	201.1	178.7
30 2019/2020		43.4	43.4	21.9	401.3	202.5	180.6
31 2020/2021		43.4	43.4	21.4	413.3	203.9	182.5
32 2021/2022		43.4	43.4	20.9	425.7	205.3	184.3
33 2022/2023		43.4	43.4	20.4	438.5	206.7	186.2
34 2023/2024		43.4	43.4	20.0	451.7	208.1	188.1
35 2024/2025		43.4	43.4	19.5	465.2	209.5	189.9
36 2025/2026		43.4	43.4	19.1	479.2	210.9	191.8
37 2026/2027		43.4	43.4	18.7	493.5	212.3	193.7
38 2027/2028		43.4	43.4	18.2	508.4	213.8	195.5
39 2028/2029		43.4	43.4	17.8	523.6	215.2	197.4
40 2029/2030		43.4	43.4	17.4	539.3	216.7	199.2
41 2030/2031		43.4	43.4	17.0	555.5	218.1	201.1
42 2031/2032		43.4	43.4	16.7	572.2	219.6	203.0
43 2032/2033		43.4	43.4	16.3	589.3	221.1	204.8
44 2033/2034		43.4	43.4	15.9	607.0	222.6	206.7
45 2034/2035		43.4	43.4	15.6	625.2	224.1	208.6
46 2035/2036		43.4	43.4	15.2	644.0	225.6	210.4
47 2036/2037		43.4	43.4	14.9	663.3	227.2	212.3 B - C =
48 2037/2038		43.4	43.4	14.5	683.2	228.7	214.2 0.0
49 2038/2039		43.4	43.4	14.2	703.7	230.3	216.1
50 2039/2040		43.4	43.4	13.9	724.8	231.8	217.9 B / C =
<b>Total</b>	<b>8,677.1</b>	<b>2,039.1</b>	<b>10,716.2</b>	<b>8,373.0</b>	<b>18,687.4</b>	<b>9,373.0</b>	<b>(0.0)</b>

Name of Quebrada : SANTA ANA Economic development rate : 3%/year  
 E.I.R.R. = 11.5440 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fiscal Year	Const- ruction Cost	O & M Cost	Cost Total	Discounted Total Cost	Discounted		Net Present Worth
					Annual Benefit	Total Benefit	
1 1990/1991	621.4		621.4	557.1		0.0	(557.1)
2 1991/1992	828.6		828.6	665.9		0.0	(665.9)
3 1992/1993	621.4	5.2	626.6	451.5	101.2	72.9	(378.6)
4 1993/1994		10.4	10.4	6.7	202.3	130.7	124.0
5 1994/1995		10.4	10.4	6.0	208.4	120.7	114.7
6 1995/1996		10.4	10.4	5.4	214.6	111.4	106.1
7 1996/1997		10.4	10.4	4.8	221.1	102.9	98.1
8 1997/1998		10.4	10.4	4.3	227.7	95.0	90.7
9 1998/1999		10.4	10.4	3.9	234.5	87.7	83.9
10 1999/2000		10.4	10.4	3.5	241.6	81.0	77.5
11 2000/2001		10.4	10.4	3.1	248.8	74.8	71.7
12 2001/2002		10.4	10.4	2.8	256.3	69.1	66.3
13 2002/2003		10.4	10.4	2.5	264.0	63.8	61.3
14 2003/2004		10.4	10.4	2.2	271.9	58.9	56.7
15 2004/2005		10.4	10.4	2.0	280.1	54.4	52.4
16 2005/2006		10.4	10.4	1.8	288.5	50.2	48.4
17 2006/2007		10.4	10.4	1.6	297.1	46.4	44.8
18 2007/2008		10.4	10.4	1.4	306.0	42.8	41.4
19 2008/2009		10.4	10.4	1.3	315.2	39.5	38.2
20 2009/2010		10.4	10.4	1.2	324.7	36.5	35.4
21 2010/2011		10.4	10.4	1.0	334.4	33.7	32.7
22 2011/2012		10.4	10.4	0.9	344.4	31.1	30.2
23 2012/2013		10.4	10.4	0.8	354.8	28.8	27.9
24 2013/2014		10.4	10.4	0.8	365.4	26.5	25.8
25 2014/2015		10.4	10.4	0.7	376.4	24.5	23.8
26 2015/2016		10.4	10.4	0.6	387.7	22.6	22.0
27 2016/2017		10.4	10.4	0.5	399.3	20.9	20.4
28 2017/2018		10.4	10.4	0.5	411.3	19.3	18.8
29 2018/2019		10.4	10.4	0.4	423.6	17.8	17.4
30 2019/2020		10.4	10.4	0.4	436.3	16.5	16.1
31 2020/2021		10.4	10.4	0.4	449.4	15.2	14.8
32 2021/2022		10.4	10.4	0.3	462.9	14.0	13.7
33 2022/2023		10.4	10.4	0.3	476.8	13.0	12.7
34 2023/2024		10.4	10.4	0.3	491.1	12.0	11.7
35 2024/2025		10.4	10.4	0.2	505.8	11.1	10.8
36 2025/2026		10.4	10.4	0.2	521.0	10.2	10.0
37 2026/2027		10.4	10.4	0.2	536.6	9.4	9.2
38 2027/2028		10.4	10.4	0.2	552.7	8.7	8.5
39 2028/2029		10.4	10.4	0.1	569.3	8.0	7.9
40 2029/2030		10.4	10.4	0.1	586.4	7.4	7.3
41 2030/2031		10.4	10.4	0.1	604.0	6.9	6.7
42 2031/2032		10.4	10.4	0.1	622.1	6.3	6.2
43 2032/2033		10.4	10.4	0.1	640.7	5.8	5.7
44 2033/2034		10.4	10.4	0.1	660.0	5.4	5.3
45 2034/2035		10.4	10.4	0.1	679.8	5.0	4.9
46 2035/2036		10.4	10.4	0.1	700.1	4.6	4.5
47 2036/2037		10.4	10.4	0.1	721.2	4.2	4.2 B - C =
48 2037/2038		10.4	10.4	0.1	742.8	3.9	3.9 0.0
49 2038/2039		10.4	10.4	0.0	765.1	3.6	3.6
50 2039/2040		10.4	10.4	0.0	788.0	3.3	3.3 B / C =
Total	2,071.4	492.0	2,563.4	1,738.8	20,412.8	1,738.8	(0.0) 1.00

Name of Quebrada : CUPICHE  
 E.I.R.R. = 12.7935 %

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	428.3		428.3	379.8		0.0	(379.8)
2 1991/1992	571.1		571.1	448.9		0.0	(448.9)
3 1992/1993	428.3	3.6	431.9	301.0	79.3	55.3	(245.7)
4 1993/1994		7.1	7.1	4.4	158.7	98.0	93.6
5 1994/1995		7.1	7.1	3.9	163.4	89.5	85.6
6 1995/1996		7.1	7.1	3.5	168.3	81.7	78.3
7 1996/1997		7.1	7.1	3.1	173.4	74.6	71.6
8 1997/1998		7.1	7.1	2.7	178.6	68.2	65.4
9 1998/1999		7.1	7.1	2.4	183.9	62.2	59.8
10 1999/2000		7.1	7.1	2.1	189.4	56.8	54.7
11 2000/2001		7.1	7.1	1.9	195.1	51.9	50.0
12 2001/2002		7.1	7.1	1.7	201.0	47.4	45.7
13 2002/2003		7.1	7.1	1.5	207.0	43.3	41.8
14 2003/2004		7.1	7.1	1.3	213.2	39.5	38.2
15 2004/2005		7.1	7.1	1.2	219.6	36.1	34.9
16 2005/2006		7.1	7.1	1.0	226.2	33.0	31.9
17 2006/2007		7.1	7.1	0.9	233.0	30.1	29.2
18 2007/2008		7.1	7.1	0.8	240.0	27.5	26.7
19 2008/2009		7.1	7.1	0.7	247.2	25.1	24.4
20 2009/2010		7.1	7.1	0.6	254.6	22.9	22.3
21 2010/2011		7.1	7.1	0.6	262.2	20.9	20.4
22 2011/2012		7.1	7.1	0.5	270.1	19.1	18.6
23 2012/2013		7.1	7.1	0.4	278.2	17.5	17.0
24 2013/2014		7.1	7.1	0.4	286.5	15.9	15.5
25 2014/2015		7.1	7.1	0.4	295.1	14.6	14.2
26 2015/2016		7.1	7.1	0.3	304.0	13.3	13.0
27 2016/2017		7.1	7.1	0.3	313.1	12.1	11.9
28 2017/2018		7.1	7.1	0.2	322.5	11.1	10.8
29 2018/2019		7.1	7.1	0.2	332.2	10.1	9.9
30 2019/2020		7.1	7.1	0.2	342.2	9.2	9.0
31 2020/2021		7.1	7.1	0.2	352.4	8.4	8.3
32 2021/2022		7.1	7.1	0.2	363.0	7.7	7.6
33 2022/2023		7.1	7.1	0.1	373.9	7.0	6.9
34 2023/2024		7.1	7.1	0.1	385.1	6.4	6.3
35 2024/2025		7.1	7.1	0.1	396.6	5.9	5.8
36 2025/2026		7.1	7.1	0.1	408.5	5.4	5.3
37 2026/2027		7.1	7.1	0.1	420.8	4.9	4.8
38 2027/2028		7.1	7.1	0.1	433.4	4.5	4.4
39 2028/2029		7.1	7.1	0.1	446.4	4.1	4.0
40 2029/2030		7.1	7.1	0.1	459.8	3.7	3.7
41 2030/2031		7.1	7.1	0.1	473.6	3.4	3.4
42 2031/2032		7.1	7.1	0.0	487.8	3.1	3.1
43 2032/2033		7.1	7.1	0.0	502.5	2.8	2.8
44 2033/2034		7.1	7.1	0.0	517.5	2.6	2.6
45 2034/2035		7.1	7.1	0.0	533.1	2.4	2.3
46 2035/2036		7.1	7.1	0.0	549.1	2.2	2.1
47 2036/2037		7.1	7.1	0.0	565.5	2.0	1.9 B - C =
48 2037/2038		7.1	7.1	0.0	582.5	1.8	1.8 0.0
49 2038/2039		7.1	7.1	0.0	600.0	1.6	1.6
50 2039/2040		7.1	7.1	0.0	618.0	1.5	1.5 B / C =
							1.00
Total	1,427.8	339.1	1,766.9	1,168.4	16,007.6	1,168.4	(0.0)

Name of Quebrada : RIO CANCHACALLA Economic development rate : 3%/year  
 E.I.R.R. = -2.0908 % Unit : US\$ 10<sup>3</sup>

Year	Fiscal Year	COST STREAM			BENEFIT STREAM			Net Present Worth
		Construction Cost	O & M Cost	Discounted Cost Total	Discounted Annual Benefit	Discounted Total Benefit	Discounted Total Benefit	
1	1990/1991	5,432.2		5,432.2	5,548.2		0.0	(5,548.2)
2	1991/1992	10,864.4		10,864.4	11,333.3		0.0	(11,333.3)
3	1992/1993	5,432.2	67.9	5,500.1	5,860.0	101.0	107.6	(5,752.4)
4	1993/1994	5,432.2	67.9	5,500.1	5,985.1	104.0	113.2	(5,872.0)
5	1994/1995		135.8	135.8	150.9	201.9	224.4	73.5
6	1995/1996		135.8	135.8	154.2	208.0	236.1	81.9
7	1996/1997		135.8	135.8	157.5	214.2	248.4	90.9
8	1997/1998		135.8	135.8	160.8	220.6	261.3	100.5
9	1998/1999		135.8	135.8	164.2	227.3	274.9	110.6
10	1999/2000		135.8	135.8	167.8	234.1	289.2	121.4
11	2000/2001		135.8	135.8	171.3	241.1	304.2	132.9
12	2001/2002		135.8	135.8	175.0	248.3	320.0	145.0
13	2002/2003		135.8	135.8	178.7	255.8	336.6	157.9
14	2003/2004		135.8	135.8	182.6	263.5	354.2	171.6
15	2004/2005		135.8	135.8	186.4	271.4	372.6	186.1
16	2005/2006		135.8	135.8	190.4	279.5	391.9	201.5
17	2006/2007		135.8	135.8	194.5	287.9	412.3	217.8
18	2007/2008		135.8	135.8	198.7	296.5	433.8	235.1
19	2008/2009		135.8	135.8	202.9	305.4	456.3	253.4
20	2009/2010		135.8	135.8	207.2	314.6	480.0	272.8
21	2010/2011		135.8	135.8	211.7	324.0	505.0	293.3
22	2011/2012		135.8	135.8	216.2	333.7	531.3	315.1
23	2012/2013		135.8	135.8	220.8	343.8	558.9	338.1
24	2013/2014		135.8	135.8	225.5	354.1	587.9	362.4
25	2014/2015		135.8	135.8	230.3	364.7	618.5	388.2
26	2015/2016		135.8	135.8	235.2	375.6	650.7	415.4
27	2016/2017		135.8	135.8	240.3	386.9	684.5	444.2
28	2017/2018		135.8	135.8	245.4	398.5	720.1	474.7
29	2018/2019		135.8	135.8	250.6	410.5	757.5	506.9
30	2019/2020		135.8	135.8	256.0	422.8	796.9	540.9
31	2020/2021		135.8	135.8	261.4	435.5	838.3	576.9
32	2021/2022		135.8	135.8	267.0	448.5	881.9	614.9
33	2022/2023		135.8	135.8	272.7	462.0	927.8	655.1
34	2023/2024		135.8	135.8	278.6	475.8	976.0	697.5
35	2024/2025		135.8	135.8	284.5	490.1	1,026.8	742.3
36	2025/2026		135.8	135.8	290.6	504.8	1,080.2	789.6
37	2026/2027		135.8	135.8	296.8	520.0	1,136.3	839.5
38	2027/2028		135.8	135.8	303.1	535.6	1,195.4	892.3
39	2028/2029		135.8	135.8	309.6	551.6	1,257.6	948.0
40	2029/2030		135.8	135.8	316.2	568.2	1,323.0	1,006.8
41	2030/2031		135.8	135.8	323.0	585.2	1,391.7	1,068.8
42	2031/2032		135.8	135.8	329.9	602.8	1,464.1	1,134.3
43	2032/2033		135.8	135.8	336.9	620.9	1,540.2	1,203.3
44	2033/2034		135.8	135.8	344.1	639.5	1,620.3	1,276.2
45	2034/2035		135.8	135.8	351.4	658.7	1,704.6	1,353.1
46	2035/2036		135.8	135.8	358.9	678.4	1,793.2	1,434.3
47	2036/2037		135.8	135.8	366.6	698.8	1,886.4	1,519.8 B - C =
48	2037/2038		135.8	135.8	374.4	719.8	1,984.5	1,610.1 0.0
49	2038/2039		135.8	135.8	382.4	741.4	2,087.7	1,705.3
50	2039/2040		135.8	135.8	390.6	763.6	2,196.3	1,805.7 B / C =
								1.00
Total		27,160.9	6,382.8	33,543.7	40,340.6	19,680.8	40,340.6	0.0

Name of Quebrada : GUAYABO Economic development rate : 3%/year  
 E.I.R.R. = 14.9385 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fiscal Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	330.4		330.4	287.4		0.0	(287.4)
2 1991/1992	440.5		440.5	333.4		0.0	(333.4)
3 1992/1993	330.4	2.8	333.1	219.4	74.3	49.0	(170.4)
4 1993/1994		5.5	5.5	3.2	148.7	85.2	82.0
5 1994/1995		5.5	5.5	2.7	153.2	76.3	73.6
6 1995/1996		5.5	5.5	2.4	157.7	68.4	66.0
7 1996/1997		5.5	5.5	2.1	162.5	61.3	59.2
8 1997/1998		5.5	5.5	1.8	167.4	54.9	53.1
9 1998/1999		5.5	5.5	1.6	172.4	49.2	47.7
10 1999/2000		5.5	5.5	1.4	177.5	44.1	42.8
11 2000/2001		5.5	5.5	1.2	182.9	39.5	38.3
12 2001/2002		5.5	5.5	1.0	188.4	35.4	34.4
13 2002/2003		5.5	5.5	0.9	194.0	31.8	30.9
14 2003/2004		5.5	5.5	0.8	199.8	28.5	27.7
15 2004/2005		5.5	5.5	0.7	205.8	25.5	24.8
16 2005/2006		5.5	5.5	0.6	212.0	22.8	22.3
17 2006/2007		5.5	5.5	0.5	218.4	20.5	20.0
18 2007/2008		5.5	5.5	0.4	224.9	18.3	17.9
19 2008/2009		5.5	5.5	0.4	231.7	16.4	16.1
20 2009/2010		5.5	5.5	0.3	238.6	14.7	14.4
21 2010/2011		5.5	5.5	0.3	245.8	13.2	12.9
22 2011/2012		5.5	5.5	0.3	253.1	11.8	11.6
23 2012/2013		5.5	5.5	0.2	260.7	10.6	10.4
24 2013/2014		5.5	5.5	0.2	268.6	9.5	9.3
25 2014/2015		5.5	5.5	0.2	276.6	8.5	8.3
26 2015/2016		5.5	5.5	0.1	284.9	7.6	7.5
27 2016/2017		5.5	5.5	0.1	293.5	6.8	6.7
28 2017/2018		5.5	5.5	0.1	302.3	6.1	6.0
29 2018/2019		5.5	5.5	0.1	311.3	5.5	5.4
30 2019/2020		5.5	5.5	0.1	320.7	4.9	4.8
31 2020/2021		5.5	5.5	0.1	330.3	4.4	4.3
32 2021/2022		5.5	5.5	0.1	340.2	4.0	3.9
33 2022/2023		5.5	5.5	0.1	350.4	3.5	3.5
34 2023/2024		5.5	5.5	0.0	360.9	3.2	3.1
35 2024/2025		5.5	5.5	0.0	371.7	2.8	2.8
36 2025/2026		5.5	5.5	0.0	382.9	2.5	2.5
37 2026/2027		5.5	5.5	0.0	394.4	2.3	2.3
38 2027/2028		5.5	5.5	0.0	406.2	2.0	2.0
39 2028/2029		5.5	5.5	0.0	418.4	1.8	1.8
40 2029/2030		5.5	5.5	0.0	431.0	1.6	1.6
41 2030/2031		5.5	5.5	0.0	443.9	1.5	1.5
42 2031/2032		5.5	5.5	0.0	457.2	1.3	1.3
43 2032/2033		5.5	5.5	0.0	470.9	1.2	1.2
44 2033/2034		5.5	5.5	0.0	485.0	1.1	1.0
45 2034/2035		5.5	5.5	0.0	499.6	0.9	0.9
46 2035/2036		5.5	5.5	0.0	514.6	0.9	0.8
47 2036/2037		5.5	5.5	0.0	530.0	0.8	0.8 B - C =
48 2037/2038		5.5	5.5	0.0	545.9	0.7	0.7 0.0
49 2038/2039		5.5	5.5	0.0	562.3	0.6	0.6
50 2039/2040		5.5	5.5	0.0	579.2	0.5	0.5 B / C =
<b>Total</b>	<b>1,101.2</b>	<b>281.5</b>	<b>1,362.7</b>	<b>864.5</b>	<b>15,002.5</b>	<b>864.5</b>	<b>0.0</b>

1.00



Name of Quebrada : AGUA SALADA  
 E.I.R.R. = 10.9046 %

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year	Fiscal Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
				Cost Total	Cost Total	Annual Benefit	Total Benefit	
1	1990/1991	528.1		528.1	476.2		0.0	(476.2)
2	1991/1992	704.2		704.2	572.5		0.0	(572.5)
3	1992/1993	528.1	4.4	532.5	390.4	80.1	58.7	(331.7)
4	1993/1994		8.8	8.8	5.8	160.1	105.8	100.0
5	1994/1995		8.8	8.8	5.2	164.9	98.3	93.1
6	1995/1996		8.8	8.8	4.7	169.9	91.3	86.6
7	1996/1997		8.8	8.8	4.3	175.0	84.8	80.5
8	1997/1998		8.8	8.8	3.8	180.2	78.7	74.9
9	1998/1999		8.8	8.8	3.5	185.6	73.1	69.7
10	1999/2000		8.8	8.8	3.1	191.2	67.9	64.8
11	2000/2001		8.8	8.8	2.8	196.9	63.1	60.3
12	2001/2002		8.8	8.8	2.5	202.8	58.6	56.0
13	2002/2003		8.8	8.8	2.3	208.9	54.4	52.1
14	2003/2004		8.8	8.8	2.1	215.2	50.5	48.5
15	2004/2005		8.8	8.8	1.9	221.7	46.9	45.1
16	2005/2006		8.8	8.8	1.7	228.3	43.6	41.9
17	2006/2007		8.8	8.8	1.5	235.2	40.5	39.0
18	2007/2008		8.8	8.8	1.4	242.2	37.6	36.2
19	2008/2009		8.8	8.8	1.2	249.5	34.9	33.7
20	2009/2010		8.8	8.8	1.1	257.0	32.4	31.3
21	2010/2011		8.8	8.8	1.0	264.7	30.1	29.1
22	2011/2012		8.8	8.8	0.9	272.6	28.0	27.1
23	2012/2013		8.8	8.8	0.8	280.8	26.0	25.2
24	2013/2014		8.8	8.8	0.7	289.2	24.1	23.4
25	2014/2015		8.8	8.8	0.7	297.9	22.4	21.7
26	2015/2016		8.8	8.8	0.6	306.8	20.8	20.2
27	2016/2017		8.8	8.8	0.5	316.0	19.3	18.8
28	2017/2018		8.8	8.8	0.5	325.5	17.9	17.5
29	2018/2019		8.8	8.8	0.4	335.3	16.7	16.2
30	2019/2020		8.8	8.8	0.4	345.3	15.5	15.1
31	2020/2021		8.8	8.8	0.4	355.7	14.4	14.0
32	2021/2022		8.8	8.8	0.3	366.4	13.4	13.0
33	2022/2023		8.8	8.8	0.3	377.4	12.4	12.1
34	2023/2024		8.8	8.8	0.3	388.7	11.5	11.3
35	2024/2025		8.8	8.8	0.2	400.3	10.7	10.5
36	2025/2026		8.8	8.8	0.2	412.3	9.9	9.7
37	2026/2027		8.8	8.8	0.2	424.7	9.2	9.0
38	2027/2028		8.8	8.8	0.2	437.5	8.6	8.4
39	2028/2029		8.8	8.8	0.2	450.6	8.0	7.8
40	2029/2030		8.8	8.8	0.1	464.1	7.4	7.2
41	2030/2031		8.8	8.8	0.1	478.0	6.9	6.7
42	2031/2032		8.8	8.8	0.1	492.4	6.4	6.3
43	2032/2033		8.8	8.8	0.1	507.1	5.9	5.8
44	2033/2034		8.8	8.8	0.1	522.3	5.5	5.4
45	2034/2035		8.8	8.8	0.1	538.0	5.1	5.0
46	2035/2036		8.8	8.8	0.1	554.2	4.7	4.7
47	2036/2037		8.8	8.8	0.1	570.8	4.4	4.3 B - C =
48	2037/2038		8.8	8.8	0.1	587.9	4.1	4.0 0.0
49	2038/2039		8.8	8.8	0.1	605.5	3.8	3.7
50	2039/2040		8.8	8.8	0.0	623.7	3.5	3.5 B / C =
Total		1,760.4	418.1	2,178.5	1,497.8	16,156.5	1,497.8	(0.0)

Name of Quebrada : DEL PATE Economic development rate : 3%/year  
 E.I.R.R. = 14.2970 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	355.4		355.4	311.0		0.0	(311.0)
2 1991/1992	473.9		473.9	382.8		0.0	(362.8)
3 1992/1993	355.4	3.0	358.4	240.0	75.7	50.7	(189.3)
4 1993/1994		5.9	5.9	3.5	151.4	88.7	85.2
5 1994/1995		5.9	5.9	3.0	155.9	79.9	76.9
6 1995/1996		5.9	5.9	2.7	160.6	72.0	69.4
7 1996/1997		5.9	5.9	2.3	165.4	64.9	62.6
8 1997/1998		5.9	5.9	2.0	170.4	58.5	56.5
9 1998/1999		5.9	5.9	1.8	175.5	52.7	50.9
10 1999/2000		5.9	5.9	1.6	180.8	47.5	46.0
11 2000/2001		5.9	5.9	1.4	186.2	42.8	41.5
12 2001/2002		5.9	5.9	1.2	191.8	38.6	37.4
13 2002/2003		5.9	5.9	1.0	197.5	34.8	33.7
14 2003/2004		5.9	5.9	0.9	203.5	31.3	30.4
15 2004/2005		5.9	5.9	0.8	209.6	28.2	27.4
16 2005/2006		5.9	5.9	0.7	215.9	25.4	24.7
17 2006/2007		5.9	5.9	0.6	222.3	22.9	22.3
18 2007/2008		5.9	5.9	0.5	229.0	20.7	20.1
19 2008/2009		5.9	5.9	0.5	235.9	18.6	18.2
20 2009/2010		5.9	5.9	0.4	242.9	16.8	16.4
21 2010/2011		5.9	5.9	0.4	250.2	15.1	14.8
22 2011/2012		5.9	5.9	0.3	257.7	13.6	13.3
23 2012/2013		5.9	5.9	0.3	265.5	12.3	12.0
24 2013/2014		5.9	5.9	0.2	273.4	11.1	10.8
25 2014/2015		5.9	5.9	0.2	281.6	10.0	9.8
26 2015/2016		5.9	5.9	0.2	290.1	9.0	8.8
27 2016/2017		5.9	5.9	0.2	298.8	8.1	7.9
28 2017/2018		5.9	5.9	0.1	307.8	7.3	7.2
29 2018/2019		5.9	5.9	0.1	317.0	6.6	6.5
30 2019/2020		5.9	5.9	0.1	326.5	5.9	5.8
31 2020/2021		5.9	5.9	0.1	336.3	5.3	5.2
32 2021/2022		5.9	5.9	0.1	346.4	4.8	4.7
33 2022/2023		5.9	5.9	0.1	356.8	4.3	4.3
34 2023/2024		5.9	5.9	0.1	367.5	3.9	3.8
35 2024/2025		5.9	5.9	0.1	378.5	3.5	3.5
36 2025/2026		5.9	5.9	0.0	389.9	3.2	3.1
37 2026/2027		5.9	5.9	0.0	401.6	2.9	2.8
38 2027/2028		5.9	5.9	0.0	413.6	2.6	2.5
39 2028/2029		5.9	5.9	0.0	426.0	2.3	2.3
40 2029/2030		5.9	5.9	0.0	438.8	2.1	2.1
41 2030/2031		5.9	5.9	0.0	452.0	1.9	1.9
42 2031/2032		5.9	5.9	0.0	465.5	1.7	1.7
43 2032/2033		5.9	5.9	0.0	479.5	1.5	1.5
44 2033/2034		5.9	5.9	0.0	493.9	1.4	1.4
45 2034/2035		5.9	5.9	0.0	508.7	1.2	1.2
46 2035/2036		5.9	5.9	0.0	523.9	1.1	1.1
47 2036/2037		5.9	5.9	0.0	539.7	1.0	1.0 B - C =
48 2037/2038		5.9	5.9	0.0	555.8	0.9	0.9 0.0
49 2038/2039		5.9	5.9	0.0	572.5	0.8	0.8
50 2039/2040		5.9	5.9	0.0	589.7	0.7	0.7 B / C =
							1.00
Total	1,184.8	281.4	1,466.2	941.5	15,275.5	941.5	0.0

Name of Quebrada : HUACRE Economic development rate : 3%/year  
 E.I.R.R. = 3.7520 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	172.7		172.7	166.4		0.0	(166.4)
2 1991/1992	230.2		230.2	213.9		0.0	(213.9)
3 1992/1993	172.7	1.4	174.1	155.9	8.5	7.6	(148.3)
4 1993/1994		2.9	2.9	2.5	17.0	14.6	12.2
5 1994/1995		2.9	2.9	2.4	17.5	14.5	12.1
6 1995/1996		2.9	2.9	2.3	18.0	14.4	12.1
7 1996/1997		2.9	2.9	2.2	18.5	14.3	12.1
8 1997/1998		2.9	2.9	2.1	19.1	14.2	12.1
9 1998/1999		2.9	2.9	2.1	19.7	14.1	12.1
10 1999/2000		2.9	2.9	2.0	20.3	14.0	12.0
11 2000/2001		2.9	2.9	1.9	20.9	13.9	12.0
12 2001/2002		2.9	2.9	1.8	21.5	13.8	12.0
13 2002/2003		2.9	2.9	1.8	22.1	13.7	11.9
14 2003/2004		2.9	2.9	1.7	22.8	13.6	11.9
15 2004/2005		2.9	2.9	1.7	23.5	13.5	11.9
16 2005/2006		2.9	2.9	1.6	24.2	13.4	11.8
17 2006/2007		2.9	2.9	1.5	24.9	13.3	11.8
18 2007/2008		2.9	2.9	1.5	25.7	13.2	11.7
19 2008/2009		2.9	2.9	1.4	26.4	13.1	11.7
20 2009/2010		2.9	2.9	1.4	27.2	13.0	11.7
21 2010/2011		2.9	2.9	1.3	28.1	12.9	11.6
22 2011/2012		2.9	2.9	1.3	28.9	12.8	11.6
23 2012/2013		2.9	2.9	1.2	29.8	12.8	11.5
24 2013/2014		2.9	2.9	1.2	30.7	12.7	11.5
25 2014/2015		2.9	2.9	1.1	31.6	12.6	11.4
26 2015/2016		2.9	2.9	1.1	32.5	12.5	11.4
27 2016/2017		2.9	2.9	1.1	33.5	12.4	11.3
28 2017/2018		2.9	2.9	1.0	34.5	12.3	11.3
29 2018/2019		2.9	2.9	1.0	35.5	12.2	11.2
30 2019/2020		2.9	2.9	1.0	36.6	12.1	11.2
31 2020/2021		2.9	2.9	0.9	37.7	12.0	11.1
32 2021/2022		2.9	2.9	0.9	38.8	11.9	11.1
33 2022/2023		2.9	2.9	0.9	40.0	11.9	11.0
34 2023/2024		2.9	2.9	0.8	41.2	11.8	11.0
35 2024/2025		2.9	2.9	0.8	42.4	11.7	10.9
36 2025/2026		2.9	2.9	0.8	43.7	11.6	10.8
37 2026/2027		2.9	2.9	0.7	45.0	11.5	10.8
38 2027/2028		2.9	2.9	0.7	46.4	11.4	10.7
39 2028/2029		2.9	2.9	0.7	47.8	11.4	10.7
40 2029/2030		2.9	2.9	0.7	49.2	11.3	10.6
41 2030/2031		2.9	2.9	0.6	50.7	11.2	10.6
42 2031/2032		2.9	2.9	0.6	52.2	11.1	10.5
43 2032/2033		2.9	2.9	0.6	53.8	11.0	10.4
44 2033/2034		2.9	2.9	0.6	55.4	10.9	10.4
45 2034/2035		2.9	2.9	0.5	57.0	10.9	10.3
46 2035/2036		2.9	2.9	0.5	58.7	10.8	10.3
47 2036/2037		2.9	2.9	0.5	60.5	10.7	10.2 B - C =
48 2037/2038		2.9	2.9	0.5	62.3	10.6	10.1 0.0
49 2038/2039		2.9	2.9	0.5	64.2	10.6	10.1
50 2039/2040		2.9	2.9	0.5	66.1	10.5	10.0 B / C =
							1.00
Total	575.6	136.7	712.3	592.7	1,712.4	592.8	0.0

Name of Quebrada : MATATA Economic development rate : 3%/year  
 E.I.R.R. = 3.7145 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	COST STREAM			BENEFIT STREAM				
	Const- ruction Cost	O & M Cost	Discounted Cost Total	Discounted Benefit Total	Net Present Worth			
1 1990/1991	340.5		340.5	328.3	0.0	(328.3)		
2 1991/1992	454.0		454.0	422.1	0.0	(422.1)		
3 1992/1993	340.5	2.8	343.4	307.8	16.6	14.9 (292.9)		
4 1993/1994		5.7	5.7	4.9	33.2	28.7 23.8		
5 1994/1995		5.7	5.7	4.7	34.2	28.5 23.8		
6 1995/1996		5.7	5.7	4.6	35.2	28.3 23.7		
7 1996/1997		5.7	5.7	4.4	36.3	28.1 23.7		
8 1997/1998		5.7	5.7	4.2	37.4	27.9 23.7		
9 1998/1999		5.7	5.7	4.1	38.5	27.7 23.6		
10 1999/2000		5.7	5.7	3.9	39.7	27.5 23.6		
11 2000/2001		5.7	5.7	3.8	40.8	27.3 23.5		
12 2001/2002		5.7	5.7	3.7	42.1	27.2 23.5		
13 2002/2003		5.7	5.7	3.5	43.3	27.0 23.4		
14 2003/2004		5.7	5.7	3.4	44.6	26.8 23.4		
15 2004/2005		5.7	5.7	3.3	46.0	26.6 23.3		
16 2005/2006		5.7	5.7	3.2	47.3	26.4 23.2		
17 2006/2007		5.7	5.7	3.1	48.8	26.2 23.2		
18 2007/2008		5.7	5.7	2.9	50.2	26.1 23.1		
19 2008/2009		5.7	5.7	2.8	51.7	25.9 23.0		
20 2009/2010		5.7	5.7	2.7	53.3	25.7 23.0		
21 2010/2011		5.7	5.7	2.6	54.9	25.5 22.9		
22 2011/2012		5.7	5.7	2.5	56.5	25.3 22.8		
23 2012/2013		5.7	5.7	2.5	58.2	25.2 22.7		
24 2013/2014		5.7	5.7	2.4	60.0	25.0 22.6		
25 2014/2015		5.7	5.7	2.3	61.8	24.8 22.5		
26 2015/2016		5.7	5.7	2.2	63.6	24.6 22.5		
27 2016/2017		5.7	5.7	2.1	65.5	24.5 22.4		
28 2017/2018		5.7	5.7	2.0	67.5	24.3 22.3		
29 2018/2019		5.7	5.7	2.0	69.5	24.1 22.2		
30 2019/2020		5.7	5.7	1.9	71.6	24.0 22.1		
31 2020/2021		5.7	5.7	1.8	73.8	23.8 22.0		
32 2021/2022		5.7	5.7	1.8	76.0	23.6 21.9		
33 2022/2023		5.7	5.7	1.7	78.3	23.5 21.8		
34 2023/2024		5.7	5.7	1.6	80.6	23.3 21.7		
35 2024/2025		5.7	5.7	1.6	83.0	23.2 21.6		
36 2025/2026		5.7	5.7	1.5	85.5	23.0 21.5		
37 2026/2027		5.7	5.7	1.5	88.1	22.8 21.4		
38 2027/2028		5.7	5.7	1.4	90.7	22.7 21.3		
39 2028/2029		5.7	5.7	1.4	93.4	22.5 21.2		
40 2029/2030		5.7	5.7	1.3	96.2	22.4 21.1		
41 2030/2031		5.7	5.7	1.3	99.1	22.2 20.9		
42 2031/2032		5.7	5.7	1.2	102.1	22.1 20.8		
43 2032/2033		5.7	5.7	1.2	105.2	21.9 20.7		
44 2033/2034		5.7	5.7	1.1	108.3	21.8 20.6		
45 2034/2035		5.7	5.7	1.1	111.6	21.6 20.5		
46 2035/2036		5.7	5.7	1.1	114.9	21.5 20.4		
47 2036/2037		5.7	5.7	1.0	118.4	21.3 20.3 B - C =		
48 2037/2038		5.7	5.7	1.0	121.9	21.2 20.2 0.0		
49 2038/2039		5.7	5.7	1.0	125.6	21.0 20.1		
50 2039/2040		5.7	5.7	0.9	129.3	20.9 20.0 B / C =		
<b>Total</b>	<b>1,135.1</b>	<b>269.6</b>	<b>1,404.7</b>	<b>1,170.5</b>	<b>3,350.4</b>	<b>1,170.5</b>	<b>0.0</b>	<b>1.00</b>

Name of Quebrada : CUCHIMACHAY Economic development rate : 3%/year  
 E.I.R.R. = 2.8997 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost	Total	Annual Benefit	Total Benefit	
1 1990/1991	509.3		509.3	495.0		0.0	(495.0)
2 1991/1992	1,018.7		1,018.7	962.1		0.0	(962.1)
3 1992/1993	509.3	6.4	515.7	473.3	32.1	29.5	(443.9)
4 1993/1994	509.3	6.4	515.7	460.0	33.1	29.5	(430.5)
5 1994/1995		12.7	12.7	11.0	64.2	55.7	44.6
6 1995/1996		12.7	12.7	10.7	66.2	55.7	45.0
7 1996/1997		12.7	12.7	10.4	68.1	55.8	45.4
8 1997/1998		12.7	12.7	10.1	70.2	55.8	45.7
9 1998/1999		12.7	12.7	9.8	72.3	55.9	46.0
10 1999/2000		12.7	12.7	9.6	74.5	55.9	46.4
11 2000/2001		12.7	12.7	9.3	76.7	56.0	46.7
12 2001/2002		12.7	12.7	9.0	79.0	56.1	47.0
13 2002/2003		12.7	12.7	8.8	81.4	56.1	47.3
14 2003/2004		12.7	12.7	8.5	83.8	56.2	47.6
15 2004/2005		12.7	12.7	8.3	86.3	56.2	47.9
16 2005/2006		12.7	12.7	8.1	88.9	56.3	48.2
17 2006/2007		12.7	12.7	7.8	91.6	56.3	48.5
18 2007/2008		12.7	12.7	7.6	94.3	56.4	48.8
19 2008/2009		12.7	12.7	7.4	97.1	56.4	49.0
20 2009/2010		12.7	12.7	7.2	100.1	56.5	49.3
21 2010/2011		12.7	12.7	7.0	103.1	56.5	49.6
22 2011/2012		12.7	12.7	6.8	106.2	56.6	49.8
23 2012/2013		12.7	12.7	6.6	109.3	56.7	50.1
24 2013/2014		12.7	12.7	6.4	112.6	56.7	50.3
25 2014/2015		12.7	12.7	6.2	116.0	56.8	50.5
26 2015/2016		12.7	12.7	6.1	119.5	56.8	50.8
27 2016/2017		12.7	12.7	5.9	123.1	56.9	51.0
28 2017/2018		12.7	12.7	5.7	126.8	56.9	51.2
29 2018/2019		12.7	12.7	5.6	130.6	57.0	51.4
30 2019/2020		12.7	12.7	5.4	134.5	57.0	51.6
31 2020/2021		12.7	12.7	5.2	138.5	57.1	51.9
32 2021/2022		12.7	12.7	5.1	142.7	57.2	52.1
33 2022/2023		12.7	12.7	5.0	146.9	57.2	52.3
34 2023/2024		12.7	12.7	4.8	151.4	57.3	52.4
35 2024/2025		12.7	12.7	4.7	155.9	57.3	52.6
36 2025/2026		12.7	12.7	4.6	160.6	57.4	52.8
37 2026/2027		12.7	12.7	4.4	165.4	57.4	53.0
38 2027/2028		12.7	12.7	4.3	170.3	57.5	53.2
39 2028/2029		12.7	12.7	4.2	175.5	57.5	53.4
40 2029/2030		12.7	12.7	4.1	180.7	57.6	53.5
41 2030/2031		12.7	12.7	3.9	186.1	57.7	53.7
42 2031/2032		12.7	12.7	3.8	191.7	57.7	53.9
43 2032/2033		12.7	12.7	3.7	197.5	57.8	54.0
44 2033/2034		12.7	12.7	3.6	203.4	57.8	54.2
45 2034/2035		12.7	12.7	3.5	209.5	57.9	54.4
46 2035/2036		12.7	12.7	3.4	215.8	57.9	54.5
47 2036/2037		12.7	12.7	3.3	222.3	58.0	54.7 B - C =
48 2037/2038		12.7	12.7	3.2	228.9	58.1	54.8 0.0
49 2038/2039		12.7	12.7	3.1	235.8	58.1	55.0
50 2039/2040		12.7	12.7	3.0	242.9	58.2	55.1 B / C =
Total	2,546.7	598.5	3,145.2	2,676.9	6,263.0	2,676.8	(0.0) 1.00

Name of Quebrada : CHUCUMAYO Economic development rate : 3%/year  
 E.I.R.R. = 8.4513 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	845.4		845.4	779.5		0.0	(779.5)
2 1991/1992	1,127.2		1,127.2	958.4		0.0	(958.4)
3 1992/1993	845.4	7.0	852.5	668.3	96.6	75.7	(592.6)
4 1993/1994		14.1	14.1	10.2	187.6	135.6	125.4
5 1994/1995		14.1	14.1	9.4	193.2	128.8	119.4
6 1995/1996		14.1	14.1	8.7	199.0	122.3	113.6
7 1996/1997		14.1	14.1	8.0	204.9	116.1	108.2
8 1997/1998		14.1	14.1	7.4	211.1	110.3	102.9
9 1998/1999		14.1	14.1	6.8	217.4	104.8	98.0
10 1999/2000		14.1	14.1	6.3	224.0	99.5	93.2
11 2000/2001		14.1	14.1	5.8	230.7	94.5	88.7
12 2001/2002		14.1	14.1	5.3	237.6	89.7	84.4
13 2002/2003		14.1	14.1	4.9	244.7	85.2	80.3
14 2003/2004		14.1	14.1	4.5	252.1	80.9	76.4
15 2004/2005		14.1	14.1	4.2	259.6	76.9	72.7
16 2005/2006		14.1	14.1	3.8	267.4	73.0	69.2
17 2006/2007		14.1	14.1	3.5	275.4	69.3	65.8
18 2007/2008		14.1	14.1	3.3	283.7	65.9	62.6
19 2008/2009		14.1	14.1	3.0	292.2	62.6	59.5
20 2009/2010		14.1	14.1	2.8	301.0	59.4	56.6
21 2010/2011		14.1	14.1	2.6	310.0	56.4	53.9
22 2011/2012		14.1	14.1	2.4	319.3	53.6	51.2
23 2012/2013		14.1	14.1	2.2	328.9	50.9	48.7
24 2013/2014		14.1	14.1	2.0	338.7	48.3	46.3
25 2014/2015		14.1	14.1	1.9	348.9	45.9	44.0
26 2015/2016		14.1	14.1	1.7	359.4	43.6	41.9
27 2016/2017		14.1	14.1	1.6	370.2	41.4	39.8
28 2017/2018		14.1	14.1	1.5	381.3	39.3	37.9
29 2018/2019		14.1	14.1	1.3	392.7	37.3	36.0
30 2019/2020		14.1	14.1	1.2	404.5	35.5	34.2
31 2020/2021		14.1	14.1	1.1	416.6	33.7	32.5
32 2021/2022		14.1	14.1	1.1	429.1	32.0	30.9
33 2022/2023		14.1	14.1	1.0	442.0	30.4	29.4
34 2023/2024		14.1	14.1	0.9	455.2	28.9	28.0
35 2024/2025		14.1	14.1	0.8	468.9	27.4	26.6
36 2025/2026		14.1	14.1	0.8	483.0	26.0	25.3
37 2026/2027		14.1	14.1	0.7	497.5	24.7	24.0
38 2027/2028		14.1	14.1	0.6	512.4	23.5	22.8
39 2028/2029		14.1	14.1	0.6	527.8	22.3	21.7
40 2029/2030		14.1	14.1	0.5	543.6	21.2	20.6
41 2030/2031		14.1	14.1	0.5	559.9	20.1	19.6
42 2031/2032		14.1	14.1	0.5	576.7	19.1	18.6
43 2032/2033		14.1	14.1	0.4	594.0	18.1	17.7
44 2033/2034		14.1	14.1	0.4	611.8	17.2	16.8
45 2034/2035		14.1	14.1	0.4	630.2	16.4	16.0
46 2035/2036		14.1	14.1	0.3	649.1	15.5	15.2
47 2036/2037		14.1	14.1	0.3	668.5	14.8	14.4 B - C =
48 2037/2038		14.1	14.1	0.3	688.6	14.0	13.7 0.0
49 2038/2039		14.1	14.1	0.3	709.3	13.3	13.0
50 2039/2040		14.1	14.1	0.2	730.5	12.6	12.4 B / C =
<b>Total</b>	<b>2,818.1</b>	<b>669.3</b>	<b>3,487.4</b>	<b>2,534.1</b>	<b>18,928.5</b>	<b>2,534.1</b>	<b>0.0</b> <b>1.00</b>

Name of Quebrada : CHACAHUARO Economic development rate : 3%/year  
 E.I.R.R. = 17.9040 % Unit : US\$ 10<sup>3</sup>

Year Fiscal	COST STREAM				BENEFIT STREAM		Net Present Worth
	Const- ruction Cost	O & M Cost	Cost Total	Discounted Total Cost	Annual Benefit	Discounted Total Benefit	
1 1990/1991	128.6		128.6	109.1		0.0	(109.1)
2 1991/1992	171.4		171.4	123.3		0.0	(123.3)
3 1992/1993	128.6	1.1	129.7	79.1	37.3	22.8	(56.3)
4 1993/1994		2.1	2.1	1.1	72.4	37.5	36.4
5 1994/1995		2.1	2.1	0.9	74.6	32.7	31.8
6 1995/1996		2.1	2.1	0.8	76.9	28.6	27.8
7 1996/1997		2.1	2.1	0.7	79.2	25.0	24.3
8 1997/1998		2.1	2.1	0.6	81.5	21.8	21.3
9 1998/1999		2.1	2.1	0.5	84.0	19.1	18.6
10 1999/2000		2.1	2.1	0.4	86.5	16.7	16.2
11 2000/2001		2.1	2.1	0.4	89.1	14.6	14.2
12 2001/2002		2.1	2.1	0.3	91.8	12.7	12.4
13 2002/2003		2.1	2.1	0.3	94.5	11.1	10.9
14 2003/2004		2.1	2.1	0.2	97.4	9.7	9.5
15 2004/2005		2.1	2.1	0.2	100.3	8.5	8.3
16 2005/2006		2.1	2.1	0.2	103.3	7.4	7.3
17 2006/2007		2.1	2.1	0.1	106.4	6.5	6.3
18 2007/2008		2.1	2.1	0.1	109.6	5.7	5.5
19 2008/2009		2.1	2.1	0.1	112.9	4.9	4.8
20 2009/2010		2.1	2.1	0.1	116.2	4.3	4.2
21 2010/2011		2.1	2.1	0.1	119.7	3.8	3.7
22 2011/2012		2.1	2.1	0.1	123.3	3.3	3.2
23 2012/2013		2.1	2.1	0.0	127.0	2.9	2.8
24 2013/2014		2.1	2.1	0.0	130.8	2.5	2.5
25 2014/2015		2.1	2.1	0.0	134.8	2.2	2.2
26 2015/2016		2.1	2.1	0.0	138.8	1.9	1.9
27 2016/2017		2.1	2.1	0.0	143.0	1.7	1.6
28 2017/2018		2.1	2.1	0.0	147.3	1.5	1.4
29 2018/2019		2.1	2.1	0.0	151.7	1.3	1.3
30 2019/2020		2.1	2.1	0.0	156.2	1.1	1.1
31 2020/2021		2.1	2.1	0.0	160.9	1.0	1.0
32 2021/2022		2.1	2.1	0.0	165.7	0.9	0.8
33 2022/2023		2.1	2.1	0.0	170.7	0.7	0.7
34 2023/2024		2.1	2.1	0.0	175.8	0.7	0.6
35 2024/2025		2.1	2.1	0.0	181.1	0.6	0.6
36 2025/2026		2.1	2.1	0.0	186.5	0.5	0.5
37 2026/2027		2.1	2.1	0.0	192.1	0.4	0.4
38 2027/2028		2.1	2.1	0.0	197.9	0.4	0.4
39 2028/2029		2.1	2.1	0.0	203.8	0.3	0.3
40 2029/2030		2.1	2.1	0.0	210.0	0.3	0.3
41 2030/2031		2.1	2.1	0.0	216.2	0.3	0.3
42 2031/2032		2.1	2.1	0.0	222.7	0.2	0.2
43 2032/2033		2.1	2.1	0.0	229.4	0.2	0.2
44 2033/2034		2.1	2.1	0.0	236.3	0.2	0.2
45 2034/2035		2.1	2.1	0.0	243.4	0.1	0.1
46 2035/2036		2.1	2.1	0.0	250.7	0.1	0.1
47 2036/2037		2.1	2.1	0.0	258.2	0.1	0.1 B - C =
48 2037/2038		2.1	2.1	0.0	266.0	0.1	0.1 0.0
49 2038/2039		2.1	2.1	0.0	273.9	0.1	0.1
50 2039/2040		2.1	2.1	0.0	282.2	0.1	0.1 B / C =
<b>Total</b>	<b>428.6</b>	<b>101.8</b>	<b>530.4</b>	<b>318.8</b>	<b>7,310.0</b>	<b>318.8</b>	<b>0.0</b> <b>1.00</b>

Name of Quebrada : PANCHA Economic development rate : 3%/year  
 E.I.R.R. = -1.0734 % Unit : US\$ 10<sup>3</sup>

Year Fiscal	COST STREAM				BENEFIT STREAM		
	Const- ruction Cost	O & M Cost	Cost Total	Discounted Total Cost	Annual Benefit	Discounted Total Benefit	Net Present Worth
1 1990/1991	1,595.4		1,595.4	1,612.7		0.0	(1,612.7)
2 1991/1992	3,190.8		3,190.8	3,260.4		0.0	(3,260.4)
3 1992/1993	1,595.4	19.9	1,615.3	1,668.5	38.4	39.7	(1,628.8)
4 1993/1994	1,595.4	19.9	1,615.3	1,686.6	39.6	41.3	(1,645.2)
5 1994/1995		39.9	39.9	42.1	76.9	81.2	39.1
6 1995/1996		39.9	39.9	42.6	79.2	84.5	41.9
7 1996/1997		39.9	39.9	43.0	81.6	88.0	45.0
8 1997/1998		39.9	39.9	43.5	84.0	91.6	48.1
9 1998/1999		39.9	39.9	44.0	86.5	95.4	51.4
10 1999/2000		39.9	39.9	44.4	89.1	99.3	54.9
11 2000/2001		39.9	39.9	44.9	91.8	103.4	58.5
12 2001/2002		39.9	39.9	45.4	94.6	107.6	62.2
13 2002/2003		39.9	39.9	45.9	97.4	112.1	66.2
14 2003/2004		39.9	39.9	46.4	100.3	116.7	70.3
15 2004/2005		39.9	39.9	46.9	103.3	121.5	74.6
16 2005/2006		39.9	39.9	47.4	106.4	126.5	79.1
17 2006/2007		39.9	39.9	47.9	109.6	131.7	83.8
18 2007/2008		39.9	39.9	48.4	112.9	137.1	88.7
19 2008/2009		39.9	39.9	49.0	116.3	142.8	93.8
20 2009/2010		39.9	39.9	49.5	119.8	148.7	99.2
21 2010/2011		39.9	39.9	50.0	123.4	154.8	104.7
22 2011/2012		39.9	39.9	50.6	127.1	161.1	110.6
23 2012/2013		39.9	39.9	51.1	130.9	167.8	116.7
24 2013/2014		39.9	39.9	51.7	134.8	174.7	123.0
25 2014/2015		39.9	39.9	52.2	138.9	181.9	129.7
26 2015/2016		39.9	39.9	52.8	143.0	189.4	136.6
27 2016/2017		39.9	39.9	53.4	147.3	197.2	143.8
28 2017/2018		39.9	39.9	54.0	151.8	205.3	151.3
29 2018/2019		39.9	39.9	54.5	156.3	213.7	159.2
30 2019/2020		39.9	39.9	55.1	161.0	222.5	167.4
31 2020/2021		39.9	39.9	55.7	165.8	231.7	176.0
32 2021/2022		39.9	39.9	56.3	170.8	241.3	184.9
33 2022/2023		39.9	39.9	56.9	175.9	251.2	194.2
34 2023/2024		39.9	39.9	57.6	181.2	261.5	204.0
35 2024/2025		39.9	39.9	58.2	186.6	272.3	214.1
36 2025/2026		39.9	39.9	58.8	192.2	283.5	224.7
37 2026/2027		39.9	39.9	59.5	198.0	295.2	235.7
38 2027/2028		39.9	39.9	60.1	203.9	307.3	247.2
39 2028/2029		39.9	39.9	60.8	210.1	320.0	259.2
40 2029/2030		39.9	39.9	61.4	216.4	333.2	271.8
41 2030/2031		39.9	39.9	62.1	222.9	346.9	284.8
42 2031/2032		39.9	39.9	62.8	229.5	361.2	298.4
43 2032/2033		39.9	39.9	63.4	236.4	376.0	312.6
44 2033/2034		39.9	39.9	64.1	243.5	391.5	327.4
45 2034/2035		39.9	39.9	64.8	250.8	407.6	342.8
46 2035/2036		39.9	39.9	65.5	258.4	424.4	358.9
47 2036/2037		39.9	39.9	66.2	266.1	441.9	375.7 B - C =
48 2037/2038		39.9	39.9	67.0	274.1	460.1	393.1 0.0
49 2038/2039		39.9	39.9	67.7	282.3	478.0	411.4
50 2039/2040		39.9	39.9	68.4	290.8	498.8	430.4 B / C =
<b>Total</b>	<b>7,976.9</b>	<b>1,874.6</b>	<b>9,851.5</b>	<b>10,722.1</b>	<b>7,498.3</b>	<b>10,722.1</b>	<b>0.0</b>

1.00



Name of Quebrada : VISO Economic development rate : 3%/year  
 E.I.R.R. = 3.9583 % Unit : US\$ 10<sup>3</sup>

Year Fisical Year	COST STREAM				BENEFIT STREAM		Net Present Worth
	Const- ruction Cost	O & M Cost	Cost Total	Discounted Total Cost	Annual Benefit	Discounted Total Benefit	
1 1990/1991	480.8		480.8	462.5		0.0	(462.5)
2 1991/1992	961.6		961.6	889.8		0.0	(889.8)
3 1992/1993	480.8	6.0	486.8	433.3	37.9	33.8	(399.5)
4 1993/1994	480.8	6.0	486.8	416.8	39.1	33.5	(383.4)
5 1994/1995		12.0	12.0	9.9	75.9	62.5	52.6
6 1995/1996		12.0	12.0	9.5	78.2	61.9	52.4
7 1996/1997		12.0	12.0	9.2	80.5	61.3	52.2
8 1997/1998		12.0	12.0	8.8	82.9	60.8	52.0
9 1998/1999		12.0	12.0	8.5	85.4	60.2	51.7
10 1999/2000		12.0	12.0	8.2	88.0	59.7	51.5
11 2000/2001		12.0	12.0	7.8	90.6	59.1	51.3
12 2001/2002		12.0	12.0	7.5	93.3	58.6	51.0
13 2002/2003		12.0	12.0	7.3	96.1	58.0	50.8
14 2003/2004		12.0	12.0	7.0	99.0	57.5	50.5
15 2004/2005		12.0	12.0	6.7	102.0	57.0	50.3
16 2005/2006		12.0	12.0	6.5	105.0	56.4	50.0
17 2006/2007		12.0	12.0	6.2	108.2	55.9	49.7
18 2007/2008		12.0	12.0	6.0	111.4	55.4	49.4
19 2008/2009		12.0	12.0	5.7	114.8	54.9	49.1
20 2009/2010		12.0	12.0	5.5	118.2	54.4	48.9
21 2010/2011		12.0	12.0	5.3	121.8	53.9	48.6
22 2011/2012		12.0	12.0	5.1	125.4	53.4	48.3
23 2012/2013		12.0	12.0	4.9	129.2	52.9	48.0
24 2013/2014		12.0	12.0	4.7	133.1	52.4	47.7
25 2014/2015		12.0	12.0	4.6	137.0	51.9	47.4
26 2015/2016		12.0	12.0	4.4	141.2	51.4	47.1
27 2016/2017		12.0	12.0	4.2	145.4	51.0	46.8
28 2017/2018		12.0	12.0	4.1	149.8	50.5	46.4
29 2018/2019		12.0	12.0	3.9	154.2	50.0	46.1
30 2019/2020		12.0	12.0	3.8	158.9	49.6	45.8
31 2020/2021		12.0	12.0	3.6	163.6	49.1	45.5
32 2021/2022		12.0	12.0	3.5	168.6	48.7	45.2
33 2022/2023		12.0	12.0	3.3	173.6	48.2	44.9
34 2023/2024		12.0	12.0	3.2	178.8	47.8	44.6
35 2024/2025		12.0	12.0	3.1	184.2	47.3	44.2
36 2025/2026		12.0	12.0	3.0	189.7	46.9	43.9
37 2026/2027		12.0	12.0	2.9	195.4	46.5	43.6
38 2027/2028		12.0	12.0	2.7	201.3	46.0	43.3
39 2028/2029		12.0	12.0	2.6	207.3	45.6	43.0
40 2029/2030		12.0	12.0	2.5	213.5	45.2	42.6
41 2030/2031		12.0	12.0	2.4	219.9	44.8	42.3
42 2031/2032		12.0	12.0	2.4	226.5	44.4	42.0
43 2032/2033		12.0	12.0	2.3	233.3	44.0	41.7
44 2033/2034		12.0	12.0	2.2	240.3	43.5	41.4
45 2034/2035		12.0	12.0	2.1	247.5	43.1	41.1
46 2035/2036		12.0	12.0	2.0	254.9	42.7	40.7
47 2036/2037		12.0	12.0	1.9	262.6	42.4	40.4 B - C =
48 2037/2038		12.0	12.0	1.9	270.5	42.0	40.1 0.0
49 2038/2039		12.0	12.0	1.8	278.6	41.6	39.8
50 2039/2040		12.0	12.0	1.7	286.9	41.2	39.5 B / C =
<b>Total</b>	<b>2,404.1</b>	<b>565.0</b>	<b>2,969.1</b>	<b>2,418.8</b>	<b>7,399.5</b>	<b>2,418.9</b>	<b>0.0</b>

Name of Quebrada : PARAC Economic development rate : 3%/year  
 E.I.R.R. = -0.8929 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical	Year	COST STREAM			BENEFIT STREAM			
		Const- ruction Cost	O & M Cost	Cost Total	Discounted Total Cost	Discounted Annual Benefit	Discounted Total Benefit	Net Present Worth
1	1990/1991	3,006.7		3,006.7	3,033.8		0.0	(3,033.8)
2	1991/1992	6,013.4		6,013.4	6,122.3		0.0	(6,122.3)
3	1992/1993	3,006.7	37.6	3,044.3	3,127.3	75.9	77.9	(3,049.4)
4	1993/1994	3,006.7	37.6	3,044.3	3,155.5	78.2	81.0	(3,074.5)
5	1994/1995		75.2	75.2	78.6	151.8	158.7	80.1
6	1995/1996		75.2	75.2	79.3	156.3	165.0	85.6
7	1996/1997		75.2	75.2	80.0	161.0	171.4	91.4
8	1997/1998		75.2	75.2	80.8	165.8	178.2	97.4
9	1998/1999		75.2	75.2	81.5	170.8	185.2	103.7
10	1999/2000		75.2	75.2	82.2	175.9	192.4	110.2
11	2000/2001		75.2	75.2	83.0	181.2	200.0	117.0
12	2001/2002		75.2	75.2	83.7	186.6	207.9	124.1
13	2002/2003		75.2	75.2	84.5	192.2	216.0	131.6
14	2003/2004		75.2	75.2	85.2	198.0	224.5	139.3
15	2004/2005		75.2	75.2	86.0	204.0	233.3	147.3
16	2005/2006		75.2	75.2	86.8	210.1	242.5	155.7
17	2006/2007		75.2	75.2	87.5	216.4	252.0	164.5
18	2007/2008		75.2	75.2	88.3	222.9	261.9	173.6
19	2008/2009		75.2	75.2	89.1	229.5	272.2	183.1
20	2009/2010		75.2	75.2	89.9	236.4	282.9	193.0
21	2010/2011		75.2	75.2	90.7	243.5	294.0	203.3
22	2011/2012		75.2	75.2	91.6	250.8	305.6	214.0
23	2012/2013		75.2	75.2	92.4	258.4	317.6	225.2
24	2013/2014		75.2	75.2	93.2	266.1	330.0	236.8
25	2014/2015		75.2	75.2	94.1	274.1	343.0	248.9
26	2015/2016		75.2	75.2	94.9	282.3	356.5	261.6
27	2016/2017		75.2	75.2	95.8	290.8	370.5	274.7
28	2017/2018		75.2	75.2	96.6	299.5	385.0	288.4
29	2018/2019		75.2	75.2	97.5	308.5	400.1	302.6
30	2019/2020		75.2	75.2	98.4	317.7	415.9	317.5
31	2020/2021		75.2	75.2	99.3	327.3	432.2	332.9
32	2021/2022		75.2	75.2	100.2	337.1	449.2	349.0
33	2022/2023		75.2	75.2	101.1	347.2	466.8	365.8
34	2023/2024		75.2	75.2	102.0	357.6	485.2	383.2
35	2024/2025		75.2	75.2	102.9	368.4	504.2	401.3
36	2025/2026		75.2	75.2	103.8	379.4	524.0	420.2
37	2026/2027		75.2	75.2	104.8	390.8	544.6	439.8
38	2027/2028		75.2	75.2	105.7	402.5	566.0	460.3
39	2028/2029		75.2	75.2	106.6	414.6	588.2	481.6
40	2029/2030		75.2	75.2	107.6	427.0	611.3	503.7
41	2030/2031		75.2	75.2	108.6	439.8	635.3	526.8
42	2031/2032		75.2	75.2	109.6	453.0	660.3	550.7
43	2032/2033		75.2	75.2	110.5	466.6	686.2	575.7
44	2033/2034		75.2	75.2	111.5	480.8	713.2	601.6
45	2034/2035		75.2	75.2	112.5	495.0	741.2	628.7
46	2035/2036		75.2	75.2	113.6	509.9	770.3	656.8
47	2036/2037		75.2	75.2	114.6	525.2	800.6	686.0 B - C =
48	2037/2038		75.2	75.2	115.6	540.9	832.0	716.4 0.0
49	2038/2039		75.2	75.2	116.7	557.2	864.7	748.0
50	2039/2040		75.2	75.2	117.7	573.9	898.7	781.0 B / C =
1.00								
Total	15,033.6	3,532.9	18,566.5	19,895.4	14,799.0	19,895.4	(0.0)	

Name of Quebrada : REDONDA

Economic development rate : 3%/year

E.I.R.R. = 4.1150 %

Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	587.9		587.9	564.7		0.0	(564.7)
2 1991/1992	783.9		783.9	723.1		0.0	(723.1)
3 1992/1993	587.9	4.9	592.8	525.3	32.0	28.4	(496.9)
4 1993/1994		9.8	9.8	8.3	62.2	53.0	44.6
5 1994/1995		9.8	9.8	8.0	64.1	52.4	44.4
6 1995/1996		9.8	9.8	7.7	66.0	51.8	44.1
7 1996/1997		9.8	9.8	7.4	68.0	51.3	43.9
8 1997/1998		9.8	9.8	7.1	70.0	50.7	43.6
9 1998/1999		9.8	9.8	6.8	72.1	50.2	43.4
10 1999/2000		9.8	9.8	6.5	74.3	49.6	43.1
11 2000/2001		9.8	9.8	6.3	76.5	49.1	42.8
12 2001/2002		9.8	9.8	6.0	78.8	48.6	42.6
13 2002/2003		9.8	9.8	5.8	81.2	48.1	42.3
14 2003/2004		9.8	9.8	5.6	83.6	47.6	42.0
15 2004/2005		9.8	9.8	5.4	86.1	47.0	41.7
16 2005/2006		9.8	9.8	5.1	88.7	46.5	41.4
17 2006/2007		9.8	9.8	4.9	91.4	46.0	41.1
18 2007/2008		9.8	9.8	4.7	94.1	45.6	40.8
19 2008/2009		9.8	9.8	4.6	97.0	45.1	40.5
20 2009/2010		9.8	9.8	4.4	99.9	44.6	40.2
21 2010/2011		9.8	9.8	4.2	102.9	44.1	39.9
22 2011/2012		9.8	9.8	4.0	105.9	43.6	39.6
23 2012/2013		9.8	9.8	3.9	109.1	43.2	39.3
24 2013/2014		9.8	9.8	3.7	112.4	42.7	39.0
25 2014/2015		9.8	9.8	3.6	115.8	42.2	38.7
26 2015/2016		9.8	9.8	3.4	119.2	41.8	38.4
27 2016/2017		9.8	9.8	3.3	122.8	41.3	38.0
28 2017/2018		9.8	9.8	3.2	126.5	40.9	37.7
29 2018/2019		9.8	9.8	3.0	130.3	40.5	37.4
30 2019/2020		9.8	9.8	2.9	134.2	40.0	37.1
31 2020/2021		9.8	9.8	2.8	138.2	39.6	36.8
32 2021/2022		9.8	9.8	2.7	142.4	39.2	36.5
33 2022/2023		9.8	9.8	2.6	146.7	38.8	36.2
34 2023/2024		9.8	9.8	2.5	151.1	38.3	35.9
35 2024/2025		9.8	9.8	2.4	155.6	37.9	35.5
36 2025/2026		9.8	9.8	2.3	160.3	37.5	35.2
37 2026/2027		9.8	9.8	2.2	165.1	37.1	34.9
38 2027/2028		9.8	9.8	2.1	170.0	36.7	34.6
39 2028/2029		9.8	9.8	2.0	175.1	36.3	34.3
40 2029/2030		9.8	9.8	2.0	180.4	35.9	34.0
41 2030/2031		9.8	9.8	1.9	185.8	35.6	33.7
42 2031/2032		9.8	9.8	1.8	191.3	35.2	33.4
43 2032/2033		9.8	9.8	1.7	197.1	34.8	33.1
44 2033/2034		9.8	9.8	1.7	203.0	34.4	32.8
45 2034/2035		9.8	9.8	1.6	209.1	34.1	32.5
46 2035/2036		9.8	9.8	1.5	215.4	33.7	32.2
47 2036/2037		9.8	9.8	1.5	221.8	33.3	31.9 B - C =
48 2037/2038		9.8	9.8	1.4	228.5	33.0	31.6 0.0
49 2038/2039		9.8	9.8	1.4	235.3	32.6	31.3
50 2039/2040		9.8	9.8	1.3	242.4	32.3	31.0 B / C =
<b>Total</b>	<b>1,859.7</b>	<b>465.4</b>	<b>2,425.1</b>	<b>1,992.4</b>	<b>6,279.9</b>	<b>1,992.3</b>	<b>(0.0)</b>

1.00

Name of Quebrada : INFIERNILLO Economic development rate : 3%/year  
 E.I.R.R. = 5.0705 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Total Cost	Annual Benefit	Total Benefit	
1 1990/1991	308.5		308.5	293.6		0.0	(293.6)
2 1991/1992	411.3		411.3	372.5		0.0	(372.5)
3 1992/1993	308.5	2.6	311.0	268.1	20.3	17.5	(250.7)
4 1993/1994		5.1	5.1	4.2	39.4	32.3	28.1
5 1994/1995		5.1	5.1	4.0	40.5	31.7	27.6
6 1995/1996		5.1	5.1	3.8	41.8	31.0	27.2
7 1996/1997		5.1	5.1	3.6	43.0	30.4	26.8
8 1997/1998		5.1	5.1	3.5	44.3	29.8	26.4
9 1998/1999		5.1	5.1	3.3	45.6	29.2	25.9
10 1999/2000		5.1	5.1	3.1	47.0	28.7	25.5
11 2000/2001		5.1	5.1	3.0	48.4	28.1	25.1
12 2001/2002		5.1	5.1	2.8	49.9	27.5	24.7
13 2002/2003		5.1	5.1	2.7	51.4	27.0	24.3
14 2003/2004		5.1	5.1	2.6	52.9	26.5	23.9
15 2004/2005		5.1	5.1	2.4	54.5	25.9	23.5
16 2005/2006		5.1	5.1	2.3	56.1	25.4	23.1
17 2006/2007		5.1	5.1	2.2	57.8	24.9	22.7
18 2007/2008		5.1	5.1	2.1	59.5	24.4	22.3
19 2008/2009		5.1	5.1	2.0	61.3	24.0	21.9
20 2009/2010		5.1	5.1	1.9	63.2	23.5	21.6
21 2010/2011		5.1	5.1	1.8	65.0	23.0	21.2
22 2011/2012		5.1	5.1	1.7	67.0	22.6	20.8
23 2012/2013		5.1	5.1	1.6	69.0	22.1	20.5
24 2013/2014		5.1	5.1	1.6	71.1	21.7	20.1
25 2014/2015		5.1	5.1	1.5	73.2	21.3	19.8
26 2015/2016		5.1	5.1	1.4	75.4	20.8	19.4
27 2016/2017		5.1	5.1	1.4	77.7	20.4	19.1
28 2017/2018		5.1	5.1	1.3	80.0	20.0	18.7
29 2018/2019		5.1	5.1	1.2	82.4	19.6	18.4
30 2019/2020		5.1	5.1	1.2	84.9	19.2	18.1
31 2020/2021		5.1	5.1	1.1	87.4	18.9	17.8
32 2021/2022		5.1	5.1	1.1	90.0	18.5	17.4
33 2022/2023		5.1	5.1	1.0	92.7	18.1	17.1
34 2023/2024		5.1	5.1	1.0	95.5	17.8	16.8
35 2024/2025		5.1	5.1	0.9	98.4	17.4	16.5
36 2025/2026		5.1	5.1	0.9	101.3	17.1	16.2
37 2026/2027		5.1	5.1	0.8	104.4	16.7	15.9
38 2027/2028		5.1	5.1	0.8	107.5	16.4	15.6
39 2028/2029		5.1	5.1	0.7	110.7	16.1	15.3
40 2029/2030		5.1	5.1	0.7	114.1	15.8	15.1
41 2030/2031		5.1	5.1	0.7	117.5	15.5	14.8
42 2031/2032		5.1	5.1	0.6	121.0	15.2	14.5
43 2032/2033		5.1	5.1	0.6	124.6	14.9	14.2
44 2033/2034		5.1	5.1	0.6	128.4	14.6	14.0
45 2034/2035		5.1	5.1	0.6	132.2	14.3	13.7
46 2035/2036		5.1	5.1	0.5	136.2	14.0	13.5
47 2036/2037		5.1	5.1	0.5	140.3	13.7	13.2 B - C =
48 2037/2038		5.1	5.1	0.5	144.5	13.5	13.0 0.0
49 2038/2039		5.1	5.1	0.5	148.8	13.2	12.7
50 2039/2040		5.1	5.1	0.4	153.3	12.9	12.5 B / C =
<b>Total</b>	<b>1,028.2</b>	<b>244.2</b>	<b>1,272.4</b>	<b>1,013.1</b>	<b>3,971.5</b>	<b>1,013.1</b>	<b>(0.0)</b>

1.00

Name of Quebrada : LUCUMA Economic development rate : 3%/year  
 E.I.R.R. = 4.7336 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	COST STREAM			BENEFIT STREAM			
	Const- ruction Cost	O & M Cost	Discounted Cost Total	Discounted Total Cost	Annual Benefit	Discounted Total Benefit	Net Present Worth
1 1990/1991	327.9		327.9	313.1		0.0	(313.1)
2 1991/1992	437.2		437.2	398.6		0.0	(398.6)
3 1992/1993	327.9	2.7	330.6	287.8	20.2	17.6	(270.2)
4 1993/1994		5.5	5.5	4.5	39.2	32.6	28.1
5 1994/1995		5.5	5.5	4.3	40.4	32.1	27.7
6 1995/1996		5.5	5.5	4.1	41.6	31.5	27.4
7 1996/1997		5.5	5.5	4.0	42.9	31.0	27.1
8 1997/1998		5.5	5.5	3.8	44.2	30.5	26.7
9 1998/1999		5.5	5.5	3.6	45.5	30.0	26.4
10 1999/2000		5.5	5.5	3.4	46.8	29.5	26.1
11 2000/2001		5.5	5.5	3.3	48.3	29.0	25.7
12 2001/2002		5.5	5.5	3.1	49.7	28.5	25.4
13 2002/2003		5.5	5.5	3.0	51.2	28.1	25.1
14 2003/2004		5.5	5.5	2.9	52.7	27.6	24.7
15 2004/2005		5.5	5.5	2.7	54.3	27.1	24.4
16 2005/2006		5.5	5.5	2.6	55.9	26.7	24.1
17 2006/2007		5.5	5.5	2.5	57.6	26.2	23.8
18 2007/2008		5.5	5.5	2.4	59.3	25.8	23.4
19 2008/2009		5.5	5.5	2.3	61.1	25.4	23.1
20 2009/2010		5.5	5.5	2.2	63.0	25.0	22.8
21 2010/2011		5.5	5.5	2.1	64.8	24.6	22.5
22 2011/2012		5.5	5.5	2.0	66.8	24.1	22.2
23 2012/2013		5.5	5.5	1.9	68.8	23.7	21.9
24 2013/2014		5.5	5.5	1.8	70.9	23.4	21.6
25 2014/2015		5.5	5.5	1.7	73.0	23.0	21.2
26 2015/2016		5.5	5.5	1.6	75.2	22.6	20.9
27 2016/2017		5.5	5.5	1.6	77.4	22.2	20.6
28 2017/2018		5.5	5.5	1.5	79.8	21.8	20.3
29 2018/2019		5.5	5.5	1.4	82.1	21.5	20.1
30 2019/2020		5.5	5.5	1.4	84.6	21.1	19.8
31 2020/2021		5.5	5.5	1.3	87.1	20.8	19.5
32 2021/2022		5.5	5.5	1.2	89.8	20.4	19.2
33 2022/2023		5.5	5.5	1.2	92.5	20.1	18.9
34 2023/2024		5.5	5.5	1.1	95.2	19.8	18.6
35 2024/2025		5.5	5.5	1.1	98.1	19.4	18.4
36 2025/2026		5.5	5.5	1.0	101.0	19.1	18.1
37 2026/2027		5.5	5.5	1.0	104.1	18.8	17.8
38 2027/2028		5.5	5.5	0.9	107.2	18.5	17.5
39 2028/2029		5.5	5.5	0.9	110.4	18.2	17.3
40 2029/2030		5.5	5.5	0.9	113.7	17.9	17.0
41 2030/2031		5.5	5.5	0.8	117.1	17.6	16.8
42 2031/2032		5.5	5.5	0.8	120.6	17.3	16.5
43 2032/2033		5.5	5.5	0.7	124.3	17.0	16.3
44 2033/2034		5.5	5.5	0.7	128.0	16.7	16.0
45 2034/2035		5.5	5.5	0.7	131.8	16.4	15.8
46 2035/2036		5.5	5.5	0.7	135.8	16.2	15.5
47 2036/2037		5.5	5.5	0.6	139.8	15.9	15.3 B - C =
48 2037/2038		5.5	5.5	0.6	144.0	15.6	15.1 0.0
49 2038/2039		5.5	5.5	0.6	148.4	15.4	14.8
50 2039/2040		5.5	5.5	0.5	152.8	15.1	14.6 B / C =
Total	1,093.0	259.6	1,352.6	1,088.5	3,959.1	1,088.5	(0.0) 1.00



IV-4 EIRR Calculation for Spe Areas





Table  
 Name of Slope : RIVER MOUTH - JICAMARCA Economic development rate : 3%/year  
 E.I.R.R. = 0.8751 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	3,117.0		3,117.0	3,096.1		0.0	(3,096.1)
2 1991/1992	6,234.0		6,234.0	6,150.7		0.0	(6,150.7)
3 1992/1993	3,117.0	39.0	3,156.0	3,092.9	116.8	114.5	(2,978.4)
4 1993/1994	3,117.0	39.0	3,156.0	3,072.2	116.8	113.7	(2,958.5)
5 1994/1995		77.9	77.9	75.3	233.6	225.9	150.5
6 1995/1996		77.9	77.9	74.8	240.6	231.1	156.2
7 1996/1997		77.9	77.9	74.3	247.8	236.4	162.1
8 1997/1998		77.9	77.9	73.8	255.3	241.9	168.0
9 1998/1999		77.9	77.9	73.3	262.9	247.5	174.1
10 1999/2000		77.9	77.9	72.9	270.8	253.2	180.3
11 2000/2001		77.9	77.9	72.4	278.9	259.0	186.7
12 2001/2002		77.9	77.9	71.9	287.3	265.0	193.1
13 2002/2003		77.9	77.9	71.4	295.9	271.1	199.7
14 2003/2004		77.9	77.9	70.9	304.8	277.4	206.5
15 2004/2005		77.9	77.9	70.4	313.9	283.8	213.3
16 2005/2006		77.9	77.9	70.0	323.3	290.3	220.4
17 2006/2007		77.9	77.9	69.5	333.0	297.1	227.5
18 2007/2008		77.9	77.9	69.0	343.0	303.9	234.9
19 2008/2009		77.9	77.9	68.6	353.3	310.9	242.4
20 2009/2010		77.9	77.9	68.1	363.9	318.1	250.0
21 2010/2011		77.9	77.9	67.7	374.8	325.5	257.8
22 2011/2012		77.9	77.9	67.2	386.1	333.0	265.8
23 2012/2013		77.9	77.9	66.8	397.7	340.7	273.9
24 2013/2014		77.9	77.9	66.3	409.6	348.5	282.2
25 2014/2015		77.9	77.9	65.9	421.9	356.6	290.7
26 2015/2016		77.9	77.9	65.4	434.6	364.8	299.4
27 2016/2017		77.9	77.9	65.0	447.6	373.2	308.3
28 2017/2018		77.9	77.9	64.5	461.0	381.9	317.3
29 2018/2019		77.9	77.9	64.1	474.8	390.7	326.6
30 2019/2020		77.9	77.9	63.7	489.1	399.7	336.0
31 2020/2021		77.9	77.9	63.3	503.8	408.9	345.7
32 2021/2022		77.9	77.9	62.8	518.9	418.4	355.5
33 2022/2023		77.9	77.9	62.4	534.4	428.0	365.6
34 2023/2024		77.9	77.9	62.0	550.5	437.9	375.9
35 2024/2025		77.9	77.9	61.6	567.0	448.0	386.5
36 2025/2026		77.9	77.9	61.2	584.0	458.4	397.2
37 2026/2027		77.9	77.9	60.8	601.5	469.0	408.2
38 2027/2028		77.9	77.9	60.3	619.6	479.8	419.4
39 2028/2029		77.9	77.9	59.9	638.2	490.9	430.9
40 2029/2030		77.9	77.9	59.5	657.3	502.2	442.7
41 2030/2031		77.9	77.9	59.1	677.0	513.8	454.7
42 2031/2032		77.9	77.9	58.7	697.3	525.7	466.9
43 2032/2033		77.9	77.9	58.3	718.2	537.8	479.5
44 2033/2034		77.9	77.9	58.0	739.8	550.2	492.3
45 2034/2035		77.9	77.9	57.6	762.0	562.9	505.4
46 2035/2036		77.9	77.9	57.2	784.8	575.9	518.7
47 2036/2037		77.9	77.9	56.8	808.4	589.2	532.4 B - C =
48 2037/2038		77.9	77.9	56.4	832.6	602.8	546.4 0.0
49 2038/2039		77.9	77.9	56.0	857.6	616.8	560.7
50 2039/2040		77.9	77.9	55.7	883.4	631.0	575.3 B / C =
Total	15,585.0	3,662.5	18,247.5	18,402.8	22,775.6	18,402.8	0.0 1.00

Name of Slope : RIVER MOUTH - CHACLACAYO Economic development rate : 3%/year  
 E.I.R.R. = -0.0366 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	3,815.4		3,815.4	3,816.8		0.0	(3,816.8)
2 1991/1992	7,630.8		7,630.8	7,636.4		0.0	(7,636.4)
3 1992/1993	3,815.4	47.7	3,863.1	3,867.3	119.7	119.8	(3,747.5)
4 1993/1994	3,815.4	47.7	3,863.1	3,868.8	119.7	119.9	(3,748.9)
5 1994/1995		95.4	95.4	95.6	239.4	239.9	144.3
6 1995/1996		95.4	95.4	95.6	246.6	247.1	151.5
7 1996/1997		95.4	95.4	95.6	254.0	254.7	159.0
8 1997/1998		95.4	95.4	95.7	261.6	262.4	166.7
9 1998/1999		95.4	95.4	95.7	269.5	270.4	174.7
10 1999/2000		95.4	95.4	95.7	277.6	278.6	182.8
11 2000/2001		95.4	95.4	95.8	285.9	287.0	191.3
12 2001/2002		95.4	95.4	95.8	294.5	295.8	199.9
13 2002/2003		95.4	95.4	95.8	303.3	304.7	208.9
14 2003/2004		95.4	95.4	95.9	312.4	314.0	218.1
15 2004/2005		95.4	95.4	95.9	321.8	323.5	227.6
16 2005/2006		95.4	95.4	95.9	331.4	333.4	237.4
17 2006/2007		95.4	95.4	96.0	341.4	343.5	247.5
18 2007/2008		95.4	95.4	96.0	351.6	353.9	257.9
19 2008/2009		95.4	95.4	96.1	362.1	364.7	268.6
20 2009/2010		95.4	95.4	96.1	373.0	375.8	279.7
21 2010/2011		95.4	95.4	96.1	384.2	387.2	291.0
22 2011/2012		95.4	95.4	96.2	395.7	398.9	302.8
23 2012/2013		95.4	95.4	96.2	407.6	411.0	314.9
24 2013/2014		95.4	95.4	96.2	419.8	423.5	327.3
25 2014/2015		95.4	95.4	96.3	432.4	436.4	340.1
26 2015/2016		95.4	95.4	96.3	445.4	449.7	353.4
27 2016/2017		95.4	95.4	96.3	458.8	463.3	367.0
28 2017/2018		95.4	95.4	96.4	472.5	477.4	381.0
29 2018/2019		95.4	95.4	96.4	486.7	491.9	395.5
30 2019/2020		95.4	95.4	96.4	501.3	506.8	410.4
31 2020/2021		95.4	95.4	96.5	516.3	522.2	425.8
32 2021/2022		95.4	95.4	96.5	531.8	538.1	441.6
33 2022/2023		95.4	95.4	96.5	547.8	554.4	457.9
34 2023/2024		95.4	95.4	96.6	564.2	571.3	474.7
35 2024/2025		95.4	95.4	96.6	581.1	588.6	492.0
36 2025/2026		95.4	95.4	96.7	598.6	606.5	509.9
37 2026/2027		95.4	95.4	96.7	616.5	624.9	528.3
38 2027/2028		95.4	95.4	96.7	635.0	643.9	547.2
39 2028/2029		95.4	95.4	96.8	654.1	663.5	566.7
40 2029/2030		95.4	95.4	96.8	673.7	683.6	586.8
41 2030/2031		95.4	95.4	96.8	693.9	704.4	607.6
42 2031/2032		95.4	95.4	96.9	714.7	725.8	628.9
43 2032/2033		95.4	95.4	96.9	736.2	747.8	651.0
44 2033/2034		95.4	95.4	96.9	758.2	770.6	673.6
45 2034/2035		95.4	95.4	97.0	781.0	794.0	697.0
46 2035/2036		95.4	95.4	97.0	804.4	818.1	721.1
47 2036/2037		95.4	95.4	97.0	828.6	842.9	745.9 B - C =
48 2037/2038		95.4	95.4	97.1	853.4	868.6	771.5 0.0
49 2038/2039		95.4	95.4	97.1	879.0	894.9	797.8
50 2039/2040		95.4	95.4	97.1	905.4	922.1	825.0 B / C =
Total	19,077.0	4,483.1	23,560.1	23,621.5	23,343.8	23,621.5	(0.0) 1.00

Name of Slope : CHACLACAYO - CALIFORNIA Economic development rate : 3%/year  
 E.I.R.R. = 13.6680 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost	Total Cost	Annual Benefit	Total Benefit	
1 1990/1991	52.0		52.0	45.7		0.0	(45.7)
2 1991/1992		0.3	0.3	0.2	5.8	4.5	4.3
3 1992/1993		0.3	0.3	0.2	6.0	4.1	3.9
4 1993/1994		0.3	0.3	0.2	6.1	3.7	3.5
5 1994/1995		0.3	0.3	0.1	6.3	3.3	3.2
6 1995/1996		0.3	0.3	0.1	6.5	3.0	2.9
7 1996/1997		0.3	0.3	0.1	6.7	2.7	2.6
8 1997/1998		0.3	0.3	0.1	6.9	2.5	2.4
9 1998/1999		0.3	0.3	0.1	7.1	2.3	2.2
10 1999/2000		0.3	0.3	0.1	7.3	2.0	2.0
11 2000/2001		0.3	0.3	0.1	7.6	1.8	1.8
12 2001/2002		0.3	0.3	0.1	7.8	1.7	1.6
13 2002/2003		0.3	0.3	0.0	8.0	1.5	1.5
14 2003/2004		0.3	0.3	0.0	8.3	1.4	1.3
15 2004/2005		0.3	0.3	0.0	8.5	1.2	1.2
16 2005/2006		0.3	0.3	0.0	8.8	1.1	1.1
17 2006/2007		0.3	0.3	0.0	9.0	1.0	1.0
18 2007/2008		0.3	0.3	0.0	9.3	0.9	0.9
19 2008/2009		0.3	0.3	0.0	9.6	0.8	0.8
20 2009/2010		0.3	0.3	0.0	9.9	0.8	0.7
21 2010/2011		0.3	0.3	0.0	10.2	0.7	0.7
22 2011/2012		0.3	0.3	0.0	10.5	0.6	0.6
23 2012/2013		0.3	0.3	0.0	10.8	0.6	0.6
24 2013/2014		0.3	0.3	0.0	11.1	0.5	0.5
25 2014/2015		0.3	0.3	0.0	11.4	0.5	0.5
26 2015/2016		0.3	0.3	0.0	11.8	0.4	0.4
27 2016/2017		0.3	0.3	0.0	12.1	0.4	0.4
28 2017/2018		0.3	0.3	0.0	12.5	0.3	0.3
29 2018/2019		0.3	0.3	0.0	12.9	0.3	0.3
30 2019/2020		0.3	0.3	0.0	13.3	0.3	0.3
31 2020/2021		0.3	0.3	0.0	13.7	0.3	0.3
32 2021/2022		0.3	0.3	0.0	14.1	0.2	0.2
33 2022/2023		0.3	0.3	0.0	14.5	0.2	0.2
34 2023/2024		0.3	0.3	0.0	14.9	0.2	0.2
35 2024/2025		0.3	0.3	0.0	15.4	0.2	0.2
36 2025/2026		0.3	0.3	0.0	15.8	0.2	0.2
37 2026/2027		0.3	0.3	0.0	16.3	0.1	0.1
38 2027/2028		0.3	0.3	0.0	16.8	0.1	0.1
39 2028/2029		0.3	0.3	0.0	17.3	0.1	0.1
40 2029/2030		0.3	0.3	0.0	17.8	0.1	0.1
41 2030/2031		0.3	0.3	0.0	18.4	0.1	0.1
42 2031/2032		0.3	0.3	0.0	18.9	0.1	0.1
43 2032/2033		0.3	0.3	0.0	19.5	0.1	0.1
44 2033/2034		0.3	0.3	0.0	20.1	0.1	0.1
45 2034/2035		0.3	0.3	0.0	20.7	0.1	0.1
46 2035/2036		0.3	0.3	0.0	21.3	0.1	0.1
47 2036/2037		0.3	0.3	0.0	21.9	0.1	0.1 B - C =
48 2037/2038		0.3	0.3	0.0	22.6	0.0	0.0 0.0
49 2038/2039		0.3	0.3	0.0	23.3	0.0	0.0
50 2039/2040		0.3	0.3	0.0	24.0	0.0	0.0 B / C =
<b>Total</b>	<b>52.0</b>	<b>12.7</b>	<b>64.7</b>	<b>47.4</b>	<b>629.1</b>	<b>47.4</b>	<b>0.0</b> <b>1.00</b>

Name of Slope : SANTA MARIA - QUIRIO  
 E.I.R.R. = -2.4220 %  
 COST STREAM

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	114.0		114.0	116.8		0.0	(116.8)
2 1991/1992		0.6	0.6	0.6	0.7	0.7	0.1
3 1992/1993		0.6	0.6	0.6	0.7	0.8	0.2
4 1993/1994		0.6	0.6	0.6	0.7	0.8	0.2
5 1994/1995		0.6	0.6	0.6	0.8	0.9	0.2
6 1995/1996		0.6	0.6	0.7	0.8	0.9	0.2
7 1996/1997		0.6	0.6	0.7	0.8	1.0	0.3
8 1997/1998		0.6	0.6	0.7	0.8	1.0	0.3
9 1998/1999		0.6	0.6	0.7	0.9	1.1	0.4
10 1999/2000		0.6	0.6	0.7	0.9	1.1	0.4
11 2000/2001		0.6	0.6	0.7	0.9	1.2	0.4
12 2001/2002		0.6	0.6	0.8	0.9	1.3	0.5
13 2002/2003		0.6	0.6	0.8	1.0	1.3	0.5
14 2003/2004		0.6	0.6	0.8	1.0	1.4	0.6
15 2004/2005		0.6	0.6	0.8	1.0	1.5	0.7
16 2005/2006		0.6	0.6	0.8	1.1	1.6	0.7
17 2006/2007		0.6	0.6	0.9	1.1	1.6	0.8
18 2007/2008		0.6	0.6	0.9	1.1	1.7	0.8
19 2008/2009		0.6	0.6	0.9	1.1	1.8	0.9
20 2009/2010		0.6	0.6	0.9	1.2	1.9	1.0
21 2010/2011		0.6	0.6	1.0	1.2	2.0	1.1
22 2011/2012		0.6	0.6	1.0	1.3	2.2	1.2
23 2012/2013		0.6	0.6	1.0	1.3	2.3	1.3
24 2013/2014		0.6	0.6	1.0	1.3	2.4	1.4
25 2014/2015		0.6	0.6	1.1	1.4	2.5	1.5
26 2015/2016		0.6	0.6	1.1	1.4	2.7	1.6
27 2016/2017		0.6	0.6	1.1	1.5	2.8	1.7
28 2017/2018		0.6	0.6	1.1	1.5	3.0	1.8
29 2018/2019		0.6	0.6	1.2	1.5	3.1	2.0
30 2019/2020		0.6	0.6	1.2	1.6	3.3	2.1
31 2020/2021		0.6	0.6	1.2	1.6	3.5	2.3
32 2021/2022		0.6	0.6	1.2	1.7	3.7	2.5
33 2022/2023		0.6	0.6	1.3	1.7	3.9	2.6
34 2023/2024		0.6	0.6	1.3	1.8	4.1	2.8
35 2024/2025		0.6	0.6	1.3	1.8	4.4	3.0
36 2025/2026		0.6	0.6	1.4	1.9	4.6	3.2
37 2026/2027		0.6	0.6	1.4	2.0	4.8	3.4
38 2027/2028		0.6	0.6	1.4	2.0	5.1	3.7
39 2028/2029		0.6	0.6	1.5	2.1	5.4	3.9
40 2029/2030		0.6	0.6	1.5	2.1	5.7	4.2
41 2030/2031		0.6	0.6	1.6	2.2	6.0	4.5
42 2031/2032		0.6	0.6	1.6	2.3	6.4	4.8
43 2032/2033		0.6	0.6	1.6	2.3	6.7	5.1
44 2033/2034		0.6	0.6	1.7	2.4	7.1	5.4
45 2034/2035		0.6	0.6	1.7	2.5	7.5	5.8
46 2035/2036		0.6	0.6	1.8	2.6	7.9	6.1
47 2036/2037		0.6	0.6	1.8	2.6	8.3	6.5 B - C =
48 2037/2038		0.6	0.6	1.8	2.7	8.8	6.9 0.0
49 2038/2039		0.6	0.6	1.9	2.8	9.3	7.4
50 2039/2040		0.6	0.6	1.9	2.9	9.8	7.9 B / C =
Total	114.0	27.9	141.9	172.9	75.5	172.9	(0.0) 1.00

Name of Slope : LA CANTUTA - LA RONDA Economic development rate : 3%/year  
 E.I.R.R. = -4.0613 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost	Total	Annual Benefit	Total Benefit	
1 1990/1991	475.5		475.5	495.6		0.0	(495.6)
2 1991/1992	634.0		634.0	688.8		0.0	(688.8)
3 1992/1993	475.5	4.0	479.5	543.0	3.5	4.0	(539.0)
4 1993/1994		7.9	7.9	9.4	7.0	8.3	(1.1)
5 1994/1995		7.9	7.9	9.8	7.2	8.9	(0.9)
6 1995/1996		7.9	7.9	10.2	7.4	9.5	(0.6)
7 1996/1997		7.9	7.9	10.6	7.7	10.2	(0.4)
8 1997/1998		7.9	7.9	11.0	7.9	11.0	(0.0)
9 1998/1999		7.9	7.9	11.5	8.1	11.8	0.3
10 1999/2000		7.9	7.9	12.0	8.4	12.7	0.7
11 2000/2001		7.9	7.9	12.5	8.6	13.6	1.1
12 2001/2002		7.9	7.9	13.0	8.9	14.6	1.6
13 2002/2003		7.9	7.9	13.6	9.1	15.7	2.1
14 2003/2004		7.9	7.9	14.2	9.4	16.8	2.7
15 2004/2005		7.9	7.9	14.8	9.7	18.1	3.3
16 2005/2006		7.9	7.9	15.4	10.0	19.4	4.0
17 2006/2007		7.9	7.9	16.0	10.3	20.8	4.8
18 2007/2008		7.9	7.9	16.7	10.6	22.4	5.6
19 2008/2009		7.8	7.9	17.4	10.9	24.0	6.6
20 2009/2010		7.9	7.9	18.2	11.2	25.8	7.6
21 2010/2011		7.9	7.9	18.9	11.6	27.7	8.7
22 2011/2012		7.9	7.9	19.7	11.9	29.7	10.0
23 2012/2013		7.9	7.9	20.6	12.3	31.9	11.3
24 2013/2014		7.9	7.9	21.4	12.7	34.2	12.8
25 2014/2015		7.9	7.9	22.3	13.0	36.8	14.4
26 2015/2016		7.9	7.9	23.3	13.4	39.5	16.2
27 2016/2017		7.9	7.9	24.3	13.8	42.4	18.1
28 2017/2018		7.9	7.9	25.3	14.3	45.5	20.2
29 2018/2019		7.9	7.9	26.4	14.7	48.8	22.5
30 2019/2020		7.9	7.9	27.5	15.1	52.4	25.0
31 2020/2021		7.9	7.9	28.7	15.6	56.3	27.6
32 2021/2022		7.9	7.9	29.9	16.0	60.4	30.6
33 2022/2023		7.9	7.9	31.1	16.5	64.9	33.8
34 2023/2024		7.9	7.9	32.4	17.0	69.7	37.2
35 2024/2025		7.9	7.9	33.8	17.5	74.8	41.0
36 2025/2026		7.9	7.9	35.3	18.1	80.3	45.1
37 2026/2027		7.9	7.9	36.7	18.6	86.2	49.5
38 2027/2028		7.9	7.9	38.3	19.2	92.6	54.3
39 2028/2029		7.9	7.9	39.9	19.7	99.4	59.5
40 2029/2030		7.9	7.9	41.6	20.3	106.7	65.1
41 2030/2031		7.9	7.9	43.4	20.9	114.5	71.2
42 2031/2032		7.9	7.9	45.2	21.6	123.0	77.8
43 2032/2033		7.9	7.9	47.1	22.2	132.0	84.9
44 2033/2034		7.9	7.9	49.1	22.9	141.7	92.6
45 2034/2035		7.9	7.9	51.2	23.6	152.2	101.0
46 2035/2036		7.9	7.9	53.4	24.3	163.4	110.0
47 2036/2037		7.9	7.9	55.6	25.0	175.4	119.8 B - C =
48 2037/2038		7.8	7.9	58.0	25.7	188.3	130.3 0.0
49 2038/2039		7.9	7.9	60.4	26.5	202.2	141.7
50 2039/2040		7.9	7.9	63.0	27.3	217.0	154.1 B / C =
<b>Total</b>	<b>1,585.0</b>	<b>376.4</b>	<b>1,961.4</b>	<b>3,057.5</b>	<b>707.3</b>	<b>3,057.5</b>	<b>(0.0)</b> <b>1.00</b>

Name of Slope : PEDREGAL - CAROSIO

Economic development rate : 3%/year

E.I.R.R. = 0.1516 %

Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	353.0		353.0	352.5		0.0	(352.5)
2 1991/1992	353.0		353.0	351.9		0.0	(351.9)
3 1992/1993		3.5	3.5	3.5	8.7	8.7	5.2
4 1993/1994		3.5	3.5	3.5	9.0	8.9	5.4
5 1994/1995		3.5	3.5	3.5	9.2	9.2	5.7
6 1995/1996		3.5	3.5	3.5	9.5	9.4	5.9
7 1996/1997		3.5	3.5	3.5	9.8	9.7	6.2
8 1997/1998		3.5	3.5	3.5	10.1	10.0	6.5
9 1998/1999		3.5	3.5	3.5	10.4	10.3	6.8
10 1999/2000		3.5	3.5	3.5	10.7	10.6	7.1
11 2000/2001		3.5	3.5	3.5	11.0	10.9	7.4
12 2001/2002		3.5	3.5	3.5	11.4	11.2	7.7
13 2002/2003		3.5	3.5	3.5	11.7	11.5	8.0
14 2003/2004		3.5	3.5	3.5	12.1	11.8	8.4
15 2004/2005		3.5	3.5	3.5	12.4	12.1	8.7
16 2005/2006		3.5	3.5	3.4	12.8	12.5	9.0
17 2006/2007		3.5	3.5	3.4	13.2	12.8	9.4
18 2007/2008		3.5	3.5	3.4	13.6	13.2	9.8
19 2008/2009		3.5	3.5	3.4	14.0	13.6	10.2
20 2009/2010		3.5	3.5	3.4	14.4	14.0	10.6
21 2010/2011		3.5	3.5	3.4	14.8	14.4	11.0
22 2011/2012		3.5	3.5	3.4	15.3	14.8	11.4
23 2012/2013		3.5	3.5	3.4	15.7	15.2	11.8
24 2013/2014		3.5	3.5	3.4	16.2	15.6	12.2
25 2014/2015		3.5	3.5	3.4	16.7	16.1	12.7
26 2015/2016		3.5	3.5	3.4	17.2	16.5	13.1
27 2016/2017		3.5	3.5	3.4	17.7	17.0	13.6
28 2017/2018		3.5	3.5	3.4	18.3	17.5	14.1
29 2018/2019		3.5	3.5	3.4	18.8	18.0	14.6
30 2019/2020		3.5	3.5	3.4	19.4	18.5	15.1
31 2020/2021		3.5	3.5	3.4	19.9	19.0	15.7
32 2021/2022		3.5	3.5	3.4	20.5	19.6	16.2
33 2022/2023		3.5	3.5	3.4	21.2	20.1	16.8
34 2023/2024		3.5	3.5	3.4	21.8	20.7	17.3
35 2024/2025		3.5	3.5	3.3	22.4	21.3	17.9
36 2025/2026		3.5	3.5	3.3	23.1	21.9	18.5
37 2026/2027		3.5	3.5	3.3	23.8	22.5	19.2
38 2027/2028		3.5	3.5	3.3	24.5	23.2	19.8
39 2028/2029		3.5	3.5	3.3	25.3	23.8	20.5
40 2029/2030		3.5	3.5	3.3	26.0	24.5	21.2
41 2030/2031		3.5	3.5	3.3	26.8	25.2	21.9
42 2031/2032		3.5	3.5	3.3	27.6	25.9	22.6
43 2032/2033		3.5	3.5	3.3	28.4	26.6	23.3
44 2033/2034		3.5	3.5	3.3	29.3	27.4	24.1
45 2034/2035		3.5	3.5	3.3	30.2	28.2	24.9
46 2035/2036		3.5	3.5	3.3	31.1	29.0	25.7
47 2036/2037		3.5	3.5	3.3	32.0	29.8	26.5 B - C =
48 2037/2038		3.5	3.5	3.3	33.0	30.7	27.4 0.0
49 2038/2039		3.5	3.5	3.3	34.0	31.5	28.2
50 2039/2040		3.5	3.5	3.3	35.0	32.4	29.1 B / C =
							1.00
Total	706.0	169.4	875.4	867.2	910.1	867.2	(0.0)

Name of Slope : CAROSIO - CORRALES  
 E.I.R.R. = 2.2870 %  
 COST STREAM

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>  
 BENEFIT STREAM

Year Fiscal Year	COST STREAM			BENEFIT STREAM		
	Const- ruction Cost	O & M Cost	Discounted Cost Total	Discounted Annual Benefit	Discounted Total Benefit	Net Present Worth
1 1990/1991	207.0		207.0		0.0	(202.4)
2 1991/1992		1.0	1.0	4.2	4.0	3.0
3 1992/1993		1.0	1.0	4.3	4.0	3.0
4 1993/1994		1.0	1.0	4.4	4.0	3.1
5 1994/1995		1.0	1.0	4.6	4.1	3.1
6 1995/1996		1.0	1.0	4.7	4.1	3.2
7 1996/1997		1.0	1.0	4.8	4.1	3.2
8 1997/1998		1.0	1.0	5.0	4.2	3.3
9 1998/1999		1.0	1.0	5.1	4.2	3.3
10 1999/2000		1.0	1.0	5.3	4.2	3.4
11 2000/2001		1.0	1.0	5.4	4.2	3.4
12 2001/2002		1.0	1.0	5.6	4.3	3.5
13 2002/2003		1.0	1.0	5.8	4.3	3.5
14 2003/2004		1.0	1.0	6.0	4.3	3.6
15 2004/2005		1.0	1.0	6.1	4.4	3.6
16 2005/2006		1.0	1.0	6.3	4.4	3.7
17 2006/2007		1.0	1.0	6.5	4.4	3.7
18 2007/2008		1.0	1.0	6.7	4.5	3.8
19 2008/2009		1.0	1.0	6.9	4.5	3.8
20 2009/2010		1.0	1.0	7.1	4.5	3.9
21 2010/2011		1.0	1.0	7.3	4.6	3.9
22 2011/2012		1.0	1.0	7.5	4.6	4.0
23 2012/2013		1.0	1.0	7.8	4.6	4.0
24 2013/2014		1.0	1.0	8.0	4.6	4.0
25 2014/2015		1.0	1.0	8.2	4.7	4.1
26 2015/2016		1.0	1.0	8.5	4.7	4.1
27 2016/2017		1.0	1.0	8.7	4.7	4.2
28 2017/2018		1.0	1.0	9.0	4.8	4.2
29 2018/2019		1.0	1.0	9.3	4.8	4.3
30 2019/2020		1.0	1.0	9.5	4.8	4.3
31 2020/2021		1.0	1.0	9.8	4.9	4.4
32 2021/2022		1.0	1.0	10.1	4.9	4.4
33 2022/2023		1.0	1.0	10.4	4.9	4.5
34 2023/2024		1.0	1.0	10.7	5.0	4.5
35 2024/2025		1.0	1.0	11.1	5.0	4.5
36 2025/2026		1.0	1.0	11.4	5.1	4.6
37 2026/2027		1.0	1.0	11.7	5.1	4.6
38 2027/2028		1.0	1.0	12.1	5.1	4.7
39 2028/2029		1.0	1.0	12.5	5.2	4.7
40 2029/2030		1.0	1.0	12.8	5.2	4.8
41 2030/2031		1.0	1.0	13.2	5.2	4.8
42 2031/2032		1.0	1.0	13.6	5.3	4.9
43 2032/2033		1.0	1.0	14.0	5.3	4.9
44 2033/2034		1.0	1.0	14.4	5.3	5.0
45 2034/2035		1.0	1.0	14.9	5.4	5.0
46 2035/2036		1.0	1.0	15.3	5.4	5.0
47 2036/2037		1.0	1.0	15.8	5.5	5.1 B - C =
48 2037/2038		1.0	1.0	16.3	5.5	5.1 0.0
49 2038/2039		1.0	1.0	16.7	5.5	5.2
50 2039/2040		1.0	1.0	17.2	5.6	5.2 B / C =
Total	207.0	50.7	257.7	232.0	453.0	232.0 0.0

1.00

Name of Slope : CORRALES - CASHAHUACRA Economic development rate : 3%/year  
 E.I.R.R. = 0.4530 % Unit : US\$ 10<sup>3</sup>  
 COST STREAM BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	207.0		207.0	206.1		0.0	(206.1)
2 1991/1992		1.0	1.0	1.0	2.7	2.6	1.6
3 1992/1993		1.0	1.0	1.0	2.7	2.7	1.7
4 1993/1994		1.0	1.0	1.0	2.8	2.8	1.8
5 1994/1995		1.0	1.0	1.0	2.9	2.8	1.8
6 1995/1996		1.0	1.0	1.0	3.0	2.9	1.9
7 1996/1997		1.0	1.0	1.0	3.1	3.0	2.0
8 1997/1998		1.0	1.0	1.0	3.2	3.1	2.1
9 1998/1999		1.0	1.0	1.0	3.3	3.1	2.2
10 1999/2000		1.0	1.0	1.0	3.4	3.2	2.2
11 2000/2001		1.0	1.0	1.0	3.5	3.3	2.3
12 2001/2002		1.0	1.0	1.0	3.6	3.4	2.4
13 2002/2003		1.0	1.0	1.0	3.7	3.5	2.5
14 2003/2004		1.0	1.0	1.0	3.8	3.6	2.6
15 2004/2005		1.0	1.0	1.0	3.9	3.7	2.7
16 2005/2006		1.0	1.0	1.0	4.0	3.8	2.8
17 2006/2007		1.0	1.0	1.0	4.2	3.8	2.9
18 2007/2008		1.0	1.0	1.0	4.3	3.9	3.0
19 2008/2009		1.0	1.0	0.9	4.4	4.0	3.1
20 2009/2010		1.0	1.0	0.9	4.5	4.1	3.2
21 2010/2011		1.0	1.0	0.9	4.7	4.3	3.3
22 2011/2012		1.0	1.0	0.9	4.8	4.4	3.4
23 2012/2013		1.0	1.0	0.9	5.0	4.5	3.5
24 2013/2014		1.0	1.0	0.9	5.1	4.6	3.7
25 2014/2015		1.0	1.0	0.9	5.3	4.7	3.8
26 2015/2016		1.0	1.0	0.9	5.4	4.8	3.9
27 2016/2017		1.0	1.0	0.9	5.6	4.9	4.0
28 2017/2018		1.0	1.0	0.9	5.8	5.1	4.2
29 2018/2019		1.0	1.0	0.9	5.9	5.2	4.3
30 2019/2020		1.0	1.0	0.9	6.1	5.3	4.4
31 2020/2021		1.0	1.0	0.9	6.3	5.5	4.6
32 2021/2022		1.0	1.0	0.9	6.5	5.6	4.7
33 2022/2023		1.0	1.0	0.9	6.7	5.7	4.9
34 2023/2024		1.0	1.0	0.9	6.9	5.9	5.0
35 2024/2025		1.0	1.0	0.9	7.1	6.0	5.2
36 2025/2026		1.0	1.0	0.9	7.3	6.2	5.3
37 2026/2027		1.0	1.0	0.9	7.5	6.3	5.5
38 2027/2028		1.0	1.0	0.9	7.7	6.5	5.6
39 2028/2029		1.0	1.0	0.9	8.0	6.7	5.8
40 2029/2030		1.0	1.0	0.9	8.2	6.8	6.0
41 2030/2031		1.0	1.0	0.9	8.4	7.0	6.2
42 2031/2032		1.0	1.0	0.9	8.7	7.2	6.3
43 2032/2033		1.0	1.0	0.9	9.0	7.4	6.5
44 2033/2034		1.0	1.0	0.8	9.2	7.6	6.7
45 2034/2035		1.0	1.0	0.8	9.5	7.8	6.9
46 2035/2036		1.0	1.0	0.8	9.8	8.0	7.1
47 2036/2037		1.0	1.0	0.8	10.1	8.2	7.3 B - C =
48 2037/2038		1.0	1.0	0.8	10.4	8.4	7.5 0.0
49 2038/2039		1.0	1.0	0.8	10.7	8.6	7.7
50 2039/2040		1.0	1.0	0.8	11.0	8.8	8.0 B / C =
<b>Total</b>	<b>207.0</b>	<b>50.7</b>	<b>257.7</b>	<b>251.3</b>	<b>289.4</b>	<b>251.2</b>	<b>(0.0)</b>



Name of Slope : LA RONDA - CONFLUENCE  
 E.I.R.R. = 6.6830 %

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fiscal Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	41.0		41.0	38.4		0.0	(38.4)
2 1991/1992		0.2	0.2	0.2	2.0	1.7	1.6
3 1992/1993		0.2	0.2	0.2	2.0	1.7	1.5
4 1993/1994		0.2	0.2	0.2	2.1	1.6	1.5
5 1994/1995		0.2	0.2	0.1	2.2	1.6	1.4
6 1995/1996		0.2	0.2	0.1	2.2	1.5	1.4
7 1996/1997		0.2	0.2	0.1	2.3	1.5	1.3
8 1997/1998		0.2	0.2	0.1	2.4	1.4	1.3
9 1998/1999		0.2	0.2	0.1	2.4	1.4	1.2
10 1999/2000		0.2	0.2	0.1	2.5	1.3	1.2
11 2000/2001		0.2	0.2	0.1	2.6	1.3	1.2
12 2001/2002		0.2	0.2	0.1	2.6	1.2	1.1
13 2002/2003		0.2	0.2	0.1	2.7	1.2	1.1
14 2003/2004		0.2	0.2	0.1	2.8	1.1	1.1
15 2004/2005		0.2	0.2	0.1	2.9	1.1	1.0
16 2005/2006		0.2	0.2	0.1	3.0	1.1	1.0
17 2006/2007		0.2	0.2	0.1	3.1	1.0	1.0
18 2007/2008		0.2	0.2	0.1	3.2	1.0	0.9
19 2008/2009		0.2	0.2	0.1	3.3	1.0	0.9
20 2009/2010		0.2	0.2	0.1	3.4	0.9	0.9
21 2010/2011		0.2	0.2	0.1	3.5	0.9	0.8
22 2011/2012		0.2	0.2	0.0	3.6	0.9	0.8
23 2012/2013		0.2	0.2	0.0	3.7	0.8	0.8
24 2013/2014		0.2	0.2	0.0	3.8	0.8	0.8
25 2014/2015		0.2	0.2	0.0	3.9	0.8	0.7
26 2015/2016		0.2	0.2	0.0	4.0	0.7	0.7
27 2016/2017		0.2	0.2	0.0	4.1	0.7	0.7
28 2017/2018		0.2	0.2	0.0	4.3	0.7	0.7
29 2018/2019		0.2	0.2	0.0	4.4	0.7	0.6
30 2019/2020		0.2	0.2	0.0	4.5	0.6	0.6
31 2020/2021		0.2	0.2	0.0	4.6	0.6	0.6
32 2021/2022		0.2	0.2	0.0	4.8	0.6	0.6
33 2022/2023		0.2	0.2	0.0	4.9	0.6	0.6
34 2023/2024		0.2	0.2	0.0	5.1	0.6	0.5
35 2024/2025		0.2	0.2	0.0	5.2	0.5	0.5
36 2025/2026		0.2	0.2	0.0	5.4	0.5	0.5
37 2026/2027		0.2	0.2	0.0	5.5	0.5	0.5
38 2027/2028		0.2	0.2	0.0	5.7	0.5	0.5
39 2028/2029		0.2	0.2	0.0	5.9	0.5	0.5
40 2029/2030		0.2	0.2	0.0	6.1	0.5	0.4
41 2030/2031		0.2	0.2	0.0	6.2	0.4	0.4
42 2031/2032		0.2	0.2	0.0	6.4	0.4	0.4
43 2032/2033		0.2	0.2	0.0	6.6	0.4	0.4
44 2033/2034		0.2	0.2	0.0	6.8	0.4	0.4
45 2034/2035		0.2	0.2	0.0	7.0	0.4	0.4
46 2035/2036		0.2	0.2	0.0	7.2	0.4	0.4
47 2036/2037		0.2	0.2	0.0	7.5	0.4	0.3 B - C =
48 2037/2038		0.2	0.2	0.0	7.7	0.3	0.3 0.0
49 2038/2039		0.2	0.2	0.0	7.8	0.3	0.3
50 2039/2040		0.2	0.2	0.0	8.1	0.3	0.3 B / C =
<b>Total</b>	<b>41.0</b>	<b>10.0</b>	<b>51.0</b>	<b>41.2</b>	<b>213.9</b>	<b>41.2</b>	<b>0.0</b>

Name of Slope : CONFLUENCE - SANTA ANA Economic development rate : 3%/year  
 E.I.R.R. = 6.2290 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	166.5		166.5	156.7		0.0	(156.7)
2 1991/1992	166.5		166.5	147.5		0.0	(147.5)
3 1992/1993		1.7	1.7	1.4	15.4	12.8	11.5
4 1993/1994		1.7	1.7	1.3	15.9	12.5	11.2
5 1994/1995		1.7	1.7	1.2	16.3	12.1	10.8
6 1995/1996		1.7	1.7	1.2	16.8	11.7	10.6
7 1996/1997		1.7	1.7	1.1	17.3	11.4	10.3
8 1997/1998		1.7	1.7	1.0	17.9	11.0	10.0
9 1998/1999		1.7	1.7	1.0	18.4	10.7	9.7
10 1999/2000		1.7	1.7	0.9	18.9	10.4	9.4
11 2000/2001		1.7	1.7	0.9	19.5	10.0	9.2
12 2001/2002		1.7	1.7	0.8	20.1	9.7	8.9
13 2002/2003		1.7	1.7	0.8	20.7	9.4	8.7
14 2003/2004		1.7	1.7	0.7	21.3	9.1	8.4
15 2004/2005		1.7	1.7	0.7	22.0	8.9	8.2
16 2005/2006		1.7	1.7	0.6	22.6	8.6	8.0
17 2006/2007		1.7	1.7	0.6	23.3	8.3	7.7
18 2007/2008		1.7	1.7	0.6	24.0	8.1	7.5
19 2008/2009		1.7	1.7	0.5	24.7	7.8	7.3
20 2009/2010		1.7	1.7	0.5	25.5	7.6	7.1
21 2010/2011		1.7	1.7	0.5	26.2	7.4	6.9
22 2011/2012		1.7	1.7	0.4	27.0	7.1	6.7
23 2012/2013		1.7	1.7	0.4	27.8	6.9	6.5
24 2013/2014		1.7	1.7	0.4	28.7	6.7	6.3
25 2014/2015		1.7	1.7	0.4	29.5	6.5	6.1
26 2015/2016		1.7	1.7	0.3	30.4	6.3	6.0
27 2016/2017		1.7	1.7	0.3	31.3	6.1	5.8
28 2017/2018		1.7	1.7	0.3	32.3	5.9	5.6
29 2018/2019		1.7	1.7	0.3	33.2	5.8	5.5
30 2019/2020		1.7	1.7	0.3	34.2	5.6	5.3
31 2020/2021		1.7	1.7	0.3	35.2	5.4	5.2
32 2021/2022		1.7	1.7	0.2	36.3	5.2	5.0
33 2022/2023		1.7	1.7	0.2	37.4	5.1	4.9
34 2023/2024		1.7	1.7	0.2	38.5	4.9	4.7
35 2024/2025		1.7	1.7	0.2	39.7	4.8	4.6
36 2025/2026		1.7	1.7	0.2	40.9	4.6	4.5
37 2026/2027		1.7	1.7	0.2	42.1	4.5	4.3
38 2027/2028		1.7	1.7	0.2	43.3	4.4	4.2
39 2028/2029		1.7	1.7	0.2	44.6	4.2	4.1
40 2029/2030		1.7	1.7	0.1	46.0	4.1	4.0
41 2030/2031		1.7	1.7	0.1	47.4	4.0	3.8
42 2031/2032		1.7	1.7	0.1	48.8	3.9	3.7
43 2032/2033		1.7	1.7	0.1	50.2	3.7	3.6
44 2033/2034		1.7	1.7	0.1	51.8	3.6	3.5
45 2034/2035		1.7	1.7	0.1	53.3	3.5	3.4
46 2035/2036		1.7	1.7	0.1	54.9	3.4	3.3
47 2036/2037		1.7	1.7	0.1	56.6	3.3	3.2 B - C =
48 2037/2038		1.7	1.7	0.1	58.2	3.2	3.1 0.0
49 2038/2039		1.7	1.7	0.1	60.0	3.1	3.0
50 2039/2040		1.7	1.7	0.1	61.8	3.0	2.9 B / C =
Total	333.0	79.9	412.9	326.7	1,608.2	326.7	(0.0) 1.00

Name of Slope : CONFLUENCE - SAN JUAN  
 E.I.R.R. = 10.6360 %

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	COST STREAM			BENEFIT STREAM		Net Present Worth
		O & M Cost	Cost Total	Discounted Total Cost	Annual Benefit	Discounted Benefit	
1 1990/1991	83.0		83.0	75.0		0.0	(75.0)
2 1991/1992		0.4	0.4	0.3	6.8	5.6	5.2
3 1992/1993		0.4	0.4	0.3	7.0	5.2	4.9
4 1993/1994		0.4	0.4	0.3	7.3	4.8	4.6
5 1994/1995		0.4	0.4	0.3	7.5	4.5	4.3
6 1995/1996		0.4	0.4	0.2	7.7	4.2	4.0
7 1996/1997		0.4	0.4	0.2	7.9	3.9	3.7
8 1997/1998		0.4	0.4	0.2	8.2	3.6	3.5
9 1998/1999		0.4	0.4	0.2	8.4	3.4	3.2
10 1999/2000		0.4	0.4	0.2	8.7	3.2	3.0
11 2000/2001		0.4	0.4	0.1	8.9	2.9	2.8
12 2001/2002		0.4	0.4	0.1	9.2	2.7	2.6
13 2002/2003		0.4	0.4	0.1	9.5	2.5	2.4
14 2003/2004		0.4	0.4	0.1	9.8	2.4	2.3
15 2004/2005		0.4	0.4	0.1	10.0	2.2	2.1
16 2005/2006		0.4	0.4	0.1	10.3	2.1	2.0
17 2006/2007		0.4	0.4	0.1	10.7	1.9	1.8
18 2007/2008		0.4	0.4	0.1	11.0	1.8	1.7
19 2008/2009		0.4	0.4	0.1	11.3	1.7	1.6
20 2009/2010		0.4	0.4	0.1	11.6	1.5	1.5
21 2010/2011		0.4	0.4	0.0	12.0	1.4	1.4
22 2011/2012		0.4	0.4	0.0	12.4	1.3	1.3
23 2012/2013		0.4	0.4	0.0	12.7	1.2	1.2
24 2013/2014		0.4	0.4	0.0	13.1	1.2	1.1
25 2014/2015		0.4	0.4	0.0	13.5	1.1	1.0
26 2015/2016		0.4	0.4	0.0	13.9	1.0	1.0
27 2016/2017		0.4	0.4	0.0	14.3	0.9	0.9
28 2017/2018		0.4	0.4	0.0	14.8	0.9	0.8
29 2018/2019		0.4	0.4	0.0	15.2	0.8	0.8
30 2019/2020		0.4	0.4	0.0	15.6	0.8	0.7
31 2020/2021		0.4	0.4	0.0	16.1	0.7	0.7
32 2021/2022		0.4	0.4	0.0	16.6	0.7	0.6
33 2022/2023		0.4	0.4	0.0	17.1	0.6	0.6
34 2023/2024		0.4	0.4	0.0	17.6	0.6	0.6
35 2024/2025		0.4	0.4	0.0	18.1	0.5	0.5
36 2025/2026		0.4	0.4	0.0	18.7	0.5	0.5
37 2026/2027		0.4	0.4	0.0	19.2	0.5	0.4
38 2027/2028		0.4	0.4	0.0	19.8	0.4	0.4
39 2028/2029		0.4	0.4	0.0	20.4	0.4	0.4
40 2029/2030		0.4	0.4	0.0	21.0	0.4	0.4
41 2030/2031		0.4	0.4	0.0	21.7	0.3	0.3
42 2031/2032		0.4	0.4	0.0	22.3	0.3	0.3
43 2032/2033		0.4	0.4	0.0	23.0	0.3	0.3
44 2033/2034		0.4	0.4	0.0	23.7	0.3	0.3
45 2034/2035		0.4	0.4	0.0	24.4	0.3	0.3
46 2035/2036		0.4	0.4	0.0	25.1	0.2	0.2
47 2036/2037		0.4	0.4	0.0	25.9	0.2	0.2 B - C =
48 2037/2038		0.4	0.4	0.0	26.6	0.2	0.2 0.0
49 2038/2039		0.4	0.4	0.0	27.4	0.2	0.2
50 2039/2040		0.4	0.4	0.0	28.3	0.2	0.2 B / C =
<b>Total</b>	<b>83.0</b>	<b>20.3</b>	<b>103.3</b>	<b>78.5</b>	<b>742.4</b>	<b>70.5</b>	<b>0.0</b>

Name of Slope : SANTA ANA - CUPICHE  
 E.I.R.R. = 5.2195 %

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	995.7		995.7	946.3		0.0	(946.3)
2 1991/1992	1,327.6		1,327.6	1,199.2		0.0	(1,199.2)
3 1992/1993	995.7	8.3	1,004.0	861.9	65.3	56.1	(805.8)
4 1993/1994		16.6	16.6	13.5	130.7	106.6	93.1
5 1994/1995		16.6	16.6	12.9	134.6	104.4	91.5
6 1995/1996		16.6	16.6	12.2	138.7	102.2	90.0
7 1996/1997		16.6	16.6	11.6	142.8	100.0	88.4
8 1997/1998		16.6	16.6	11.0	147.1	97.9	86.9
9 1998/1999		16.6	16.6	10.5	151.5	95.8	85.4
10 1999/2000		16.6	16.6	10.0	156.1	93.8	83.9
11 2000/2001		16.6	16.6	9.5	160.7	91.8	82.4
12 2001/2002		16.6	16.6	9.0	165.6	89.9	80.9
13 2002/2003		16.6	16.6	8.6	170.5	88.0	79.4
14 2003/2004		16.6	16.6	8.1	175.6	86.2	78.0
15 2004/2005		16.6	16.6	7.7	180.9	84.3	76.6
16 2005/2006		16.6	16.6	7.4	186.3	82.6	75.2
17 2006/2007		16.6	16.6	7.0	191.9	80.8	73.8
18 2007/2008		16.6	16.6	6.6	197.7	79.1	72.5
19 2008/2009		16.6	16.6	6.3	203.6	77.4	71.1
20 2009/2010		16.6	16.6	6.0	209.7	75.8	69.8
21 2010/2011		16.6	16.6	5.7	216.0	74.2	68.5
22 2011/2012		16.6	16.6	5.4	222.5	72.6	67.2
23 2012/2013		16.6	16.6	5.1	229.2	71.1	66.0
24 2013/2014		16.6	16.6	4.9	236.1	69.6	64.7
25 2014/2015		16.6	16.6	4.7	243.1	68.1	63.5
26 2015/2016		16.6	16.6	4.4	250.4	66.7	62.3
27 2016/2017		16.6	16.6	4.2	257.9	65.3	61.1
28 2017/2018		16.6	16.6	4.0	265.7	63.9	59.9
29 2018/2019		16.6	16.6	3.8	273.7	62.6	58.8
30 2019/2020		16.6	16.6	3.6	281.9	61.3	57.6
31 2020/2021		16.6	16.6	3.4	290.3	60.0	56.5
32 2021/2022		16.6	16.6	3.3	299.0	58.7	55.4
33 2022/2023		16.6	16.6	3.1	308.0	57.5	54.4
34 2023/2024		16.6	16.6	2.9	317.2	56.2	53.3
35 2024/2025		16.6	16.6	2.8	326.8	55.1	52.3
36 2025/2026		16.6	16.6	2.7	336.6	53.9	51.2
37 2026/2027		16.6	16.6	2.5	346.7	52.6	50.2
38 2027/2028		16.6	16.6	2.4	357.1	51.7	49.3
39 2028/2029		16.6	16.6	2.3	367.8	50.6	48.3
40 2029/2030		16.6	16.6	2.2	378.8	49.5	47.3
41 2030/2031		16.6	16.6	2.1	390.2	48.5	46.4
42 2031/2032		16.6	16.6	2.0	401.9	47.4	45.5
43 2032/2033		16.6	16.6	1.9	413.9	46.4	44.6
44 2033/2034		16.6	16.6	1.8	426.3	45.4	43.7
45 2034/2035		16.6	16.6	1.7	439.1	44.5	42.8
46 2035/2036		16.6	16.6	1.6	452.3	43.6	42.0
47 2036/2037		16.6	16.6	1.5	465.9	42.6	41.1 B - C =
48 2037/2038		16.6	16.6	1.4	479.9	41.7	40.3 0.0
49 2038/2039		16.6	16.6	1.4	494.2	40.9	39.5
50 2039/2040		16.6	16.6	1.3	509.1	40.0	38.7 B / C =
							1.00
Total	3,319.0	788.3	4,107.3	3,255.3	13,187.0	3,255.3	(0.0)

Name of Slope : CUPICHE - GUAYABO

Economic development rate : 3%/year

E.I.R.R. = 3.6456 %

Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fiscal Year	Const- uction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost	Total Cost	Annual Benefit	Total Benefit	
1 1990/1991	1,214.7		1,214.7	1,172.0		0.0	(1,172.0)
2 1991/1992	1,619.6		1,619.6	1,507.7		0.0	(1,507.7)
3 1992/1993	1,214.7	10.1	1,224.8	1,100.1	58.4	52.4	(1,047.6)
4 1993/1994		20.2	20.2	17.5	116.8	101.2	83.6
5 1994/1995		20.2	20.2	16.9	120.3	100.5	83.6
6 1995/1996		20.2	20.2	16.3	123.9	99.9	83.6
7 1996/1997		20.2	20.2	15.8	127.6	99.3	83.5
8 1997/1998		20.2	20.2	15.2	131.4	98.7	83.5
9 1998/1999		20.2	20.2	14.7	135.3	98.1	83.4
10 1999/2000		20.2	20.2	14.2	139.4	97.4	83.3
11 2000/2001		20.2	20.2	13.7	143.6	96.8	83.2
12 2001/2002		20.2	20.2	13.2	147.9	96.2	83.1
13 2002/2003		20.2	20.2	12.7	152.3	95.6	82.9
14 2003/2004		20.2	20.2	12.3	156.9	95.0	82.8
15 2004/2005		20.2	20.2	11.8	161.6	94.5	82.6
16 2005/2006		20.2	20.2	11.4	166.5	93.9	82.4
17 2006/2007		20.2	20.2	11.0	171.5	93.3	82.3
18 2007/2008		20.2	20.2	10.6	176.6	92.7	82.1
19 2008/2009		20.2	20.2	10.3	181.9	92.1	81.9
20 2009/2010		20.2	20.2	9.9	187.4	91.5	81.7
21 2010/2011		20.2	20.2	9.5	193.0	91.0	81.4
22 2011/2012		20.2	20.2	9.2	198.8	90.4	81.2
23 2012/2013		20.2	20.2	8.9	204.7	89.8	81.0
24 2013/2014		20.2	20.2	8.6	210.9	89.3	80.7
25 2014/2015		20.2	20.2	8.3	217.2	88.7	80.5
26 2015/2016		20.2	20.2	8.0	223.7	88.2	80.2
27 2016/2017		20.2	20.2	7.7	230.4	87.6	79.9
28 2017/2018		20.2	20.2	7.4	237.3	87.1	79.7
29 2018/2019		20.2	20.2	7.2	244.5	86.5	79.4
30 2019/2020		20.2	20.2	6.9	251.8	86.0	79.1
31 2020/2021		20.2	20.2	6.7	259.3	85.5	78.8
32 2021/2022		20.2	20.2	6.4	267.1	84.9	78.5
33 2022/2023		20.2	20.2	6.2	275.1	84.4	78.2
34 2023/2024		20.2	20.2	6.0	283.4	83.9	77.9
35 2024/2025		20.2	20.2	5.8	291.9	83.4	77.6
36 2025/2026		20.2	20.2	5.6	300.6	82.8	77.3
37 2026/2027		20.2	20.2	5.4	309.7	82.3	76.9
38 2027/2028		20.2	20.2	5.2	319.0	81.8	76.6
39 2028/2029		20.2	20.2	5.0	328.5	81.3	76.3
40 2029/2030		20.2	20.2	4.8	338.4	80.8	76.0
41 2030/2031		20.2	20.2	4.7	348.5	80.3	75.6
42 2031/2032		20.2	20.2	4.5	359.0	79.8	75.3
43 2032/2033		20.2	20.2	4.3	369.8	79.3	75.0
44 2033/2034		20.2	20.2	4.2	380.8	78.8	74.6
45 2034/2035		20.2	20.2	4.0	392.3	78.3	74.3
46 2035/2036		20.2	20.2	3.9	404.0	77.8	73.9
47 2036/2037		20.2	20.2	3.8	416.2	77.3	73.6 B - C =
48 2037/2038		20.2	20.2	3.6	428.6	76.9	73.2 0.0
49 2038/2039		20.2	20.2	3.5	441.5	76.4	72.9
50 2039/2040		20.2	20.2	3.4	454.8	75.9	72.5 B / C =
<b>Total</b>	<b>4,049.0</b>	<b>961.6</b>	<b>5,010.6</b>	<b>4,185.8</b>	<b>11,779.9</b>	<b>4,185.8</b>	<b>(0.0)</b>

1.00

Name of Slope : GUAYABO - AGUA SALADA Economic development rate : 3%/year  
 E.I.R.R. = 3.4575 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Total Cost	Annual Benefit	Total Benefit	
1 1990/1991	647.1		647.1	625.5		0.0	(625.5)
2 1991/1992	862.8		862.8	806.1		0.0	(806.1)
3 1992/1993	647.1	5.4	652.5	589.2	29.9	27.0	(562.2)
4 1993/1994		10.8	10.8	9.4	59.8	52.2	42.8
5 1994/1995		10.8	10.8	9.1	61.6	51.9	42.8
6 1995/1996		10.8	10.8	8.8	63.4	51.7	42.9
7 1996/1997		10.8	10.8	8.5	65.3	51.5	43.0
8 1997/1998		10.8	10.8	8.2	67.3	51.3	43.0
9 1998/1999		10.8	10.8	7.9	69.3	51.0	43.1
10 1999/2000		10.8	10.8	7.7	71.4	50.8	43.1
11 2000/2001		10.8	10.8	7.4	73.5	50.6	43.2
12 2001/2002		10.8	10.8	7.2	75.7	50.4	43.2
13 2002/2003		10.8	10.8	6.9	78.0	50.1	43.2
14 2003/2004		10.8	10.8	6.7	80.3	49.9	43.2
15 2004/2005		10.8	10.8	6.5	82.7	49.7	43.2
16 2005/2006		10.8	10.8	6.3	85.2	49.5	43.2
17 2006/2007		10.8	10.8	6.1	87.8	49.3	43.2
18 2007/2008		10.8	10.8	5.8	90.4	49.0	43.2
19 2008/2009		10.8	10.8	5.7	93.1	48.8	43.2
20 2009/2010		10.8	10.8	5.5	95.9	48.6	43.1
21 2010/2011		10.8	10.8	5.3	98.8	48.4	43.1
22 2011/2012		10.8	10.8	5.1	101.8	48.2	43.1
23 2012/2013		10.8	10.8	4.9	104.8	48.0	43.0
24 2013/2014		10.8	10.8	4.8	108.0	47.7	43.0
25 2014/2015		10.8	10.8	4.6	111.2	47.5	42.9
26 2015/2016		10.8	10.8	4.5	114.5	47.3	42.9
27 2016/2017		10.8	10.8	4.3	118.0	47.1	42.8
28 2017/2018		10.8	10.8	4.2	121.5	46.9	42.7
29 2018/2019		10.8	10.8	4.0	125.1	46.7	42.7
30 2019/2020		10.8	10.8	3.9	128.9	46.5	42.6
31 2020/2021		10.8	10.8	3.8	132.8	46.3	42.5
32 2021/2022		10.8	10.8	3.6	136.8	46.1	42.5
33 2022/2023		10.8	10.8	3.5	140.9	45.9	42.4
34 2023/2024		10.8	10.8	3.4	145.1	45.7	42.3
35 2024/2025		10.8	10.8	3.3	149.4	45.5	42.2
36 2025/2026		10.8	10.8	3.2	153.9	45.3	42.1
37 2026/2027		10.8	10.8	3.1	158.5	45.1	42.0
38 2027/2028		10.8	10.8	3.0	163.3	44.9	41.9
39 2028/2029		10.8	10.8	2.9	168.2	44.7	41.8
40 2029/2030		10.8	10.8	2.8	173.2	44.5	41.7
41 2030/2031		10.8	10.8	2.7	178.4	44.3	41.6
42 2031/2032		10.8	10.8	2.6	183.8	44.1	41.5
43 2032/2033		10.8	10.8	2.5	189.3	43.9	41.4
44 2033/2034		10.8	10.8	2.4	195.0	43.7	41.3
45 2034/2035		10.8	10.8	2.3	200.8	43.5	41.2
46 2035/2036		10.8	10.8	2.3	206.9	43.3	41.1
47 2036/2037		10.8	10.8	2.2	213.1	43.1	40.9 B - C =
48 2037/2038		10.8	10.8	2.1	219.4	42.9	40.8 0.0
49 2038/2039		10.8	10.8	2.0	226.0	42.7	40.7
50 2039/2040		10.8	10.8	2.0	232.8	42.6	40.6 B / C =
							1.00
Total	2,157.0	512.3	2,669.3	2,245.5	6,030.8	2,245.5	0.0

Name of Slope : RIO SECO - ESPERANZA  
 E.I.R.R. = 4.3870 %

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fiscal	Year	Const- ruction Cost	Discounted			Discounted		Net Present Worth
			O & M Cost	Cost Total	Total Cost	Annual Benefit	Total Benefit	
1	1990/1991	1,716.9		1,716.9	1,644.7		0.0	(1,644.7)
2	1991/1992	2,289.2		2,289.2	2,100.8		0.0	(2,100.8)
3	1992/1993	1,716.9	14.3	1,731.2	1,522.0	96.0	84.4	(1,437.6)
4	1993/1994		28.6	28.6	24.1	192.0	161.7	137.6
5	1994/1995		28.6	28.6	23.1	197.8	159.6	136.5
6	1995/1996		28.6	28.6	22.1	203.7	157.5	135.3
7	1996/1997		28.6	28.6	21.2	209.8	155.4	134.2
8	1997/1998		28.6	28.6	20.3	216.1	153.3	133.0
9	1998/1999		28.6	28.6	19.4	222.6	151.3	131.8
10	1999/2000		28.6	28.6	18.6	229.3	149.2	130.6
11	2000/2001		28.6	28.6	17.8	236.2	147.3	129.4
12	2001/2002		28.6	28.6	17.1	243.2	145.3	128.2
13	2002/2003		28.6	28.6	16.4	250.5	143.4	127.0
14	2003/2004		28.6	28.6	15.7	258.1	141.5	125.8
15	2004/2005		28.6	28.6	15.0	265.8	139.6	124.6
16	2005/2006		28.6	28.6	14.4	273.8	137.7	123.3
17	2006/2007		28.6	28.6	13.8	282.0	135.9	122.1
18	2007/2008		28.6	28.6	13.2	290.4	134.1	120.9
19	2008/2009		28.6	28.6	12.7	299.2	132.3	119.7
20	2009/2010		28.6	28.6	12.1	308.1	130.6	118.4
21	2010/2011		28.6	28.6	11.6	317.4	128.8	117.2
22	2011/2012		28.6	28.6	11.1	326.9	127.1	116.0
23	2012/2013		28.6	28.6	10.7	336.7	125.4	114.8
24	2013/2014		28.6	28.6	10.2	346.8	123.8	113.5
25	2014/2015		28.6	28.6	9.8	357.2	122.1	112.3
26	2015/2016		28.6	28.6	9.4	367.9	120.5	111.1
27	2016/2017		28.6	28.6	9.0	379.0	118.9	109.9
28	2017/2018		28.6	28.6	8.6	390.3	117.3	108.7
29	2018/2019		28.6	28.6	8.2	402.0	115.8	107.5
30	2019/2020		28.6	28.6	7.9	414.1	114.2	106.3
31	2020/2021		28.6	28.6	7.6	426.5	112.7	105.1
32	2021/2022		28.6	28.6	7.2	439.3	111.2	104.0
33	2022/2023		28.6	28.6	6.9	452.5	109.7	102.8
34	2023/2024		28.6	28.6	6.6	466.1	108.3	101.6
35	2024/2025		28.6	28.6	6.4	480.1	106.8	100.5
36	2025/2026		28.6	28.6	6.1	494.5	105.4	99.3
37	2026/2027		28.6	28.6	5.8	509.3	104.0	98.2
38	2027/2028		28.6	28.6	5.6	524.6	102.6	97.0
39	2028/2029		28.6	28.6	5.4	540.3	101.3	95.9
40	2029/2030		28.6	28.6	5.1	556.5	99.9	94.8
41	2030/2031		28.6	28.6	4.9	573.2	98.6	93.7
42	2031/2032		28.6	28.6	4.7	590.4	97.3	92.6
43	2032/2033		28.6	28.6	4.5	608.1	96.0	91.5
44	2033/2034		28.6	28.6	4.3	626.4	94.7	90.4
45	2034/2035		28.6	28.6	4.1	645.2	93.5	89.3
46	2035/2036		28.6	28.6	4.0	664.5	92.2	88.2
47	2036/2037		28.6	28.6	3.8	684.5	91.0	87.2 B - C =
48	2037/2038		28.6	28.6	3.6	705.0	89.8	86.1 0.0
49	2038/2039		28.6	28.6	3.5	726.1	88.6	85.1
50	2039/2040		28.6	28.6	3.3	747.9	87.4	84.1 B / C =
								1.00
Total		5,723.0	1,359.2	7,082.2	5,764.8	19,374.2	5,764.8	0.0

Name of Slope : ESPERANZA - VERRUGAS Economic development rate : 3%/year  
 E.I.R.R. = 4.5030 X Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Total Cost	Annual Benefit	Total Benefit	
1 1990/1991	1,911.9		1,911.9	1,829.5		0.0	(1,829.5)
2 1991/1992	2,549.2		2,549.2	2,334.2		0.0	(2,334.2)
3 1992/1993	1,911.9	15.9	1,927.8	1,689.2	109.4	95.9	(1,593.4)
4 1993/1994		31.9	31.9	26.7	218.8	183.5	156.7
5 1994/1995		31.9	31.9	25.6	225.4	180.8	155.2
6 1995/1996		31.9	31.9	24.5	232.1	178.2	153.7
7 1996/1997		31.9	31.9	23.4	239.1	175.6	152.2
8 1997/1998		31.9	31.9	22.4	246.3	173.1	150.7
9 1998/1999		31.9	31.9	21.4	253.6	170.6	149.2
10 1999/2000		31.9	31.9	20.5	261.3	168.2	147.7
11 2000/2001		31.9	31.9	19.6	269.1	165.8	146.1
12 2001/2002		31.9	31.9	18.8	277.2	163.4	144.6
13 2002/2003		31.9	31.9	18.0	285.5	161.0	143.1
14 2003/2004		31.9	31.9	17.2	294.0	158.7	141.5
15 2004/2005		31.9	31.9	16.5	302.9	156.4	140.0
16 2005/2006		31.9	31.9	15.7	311.9	154.2	138.4
17 2006/2007		31.9	31.9	15.1	321.3	152.0	136.9
18 2007/2008		31.9	31.9	14.4	330.9	149.8	135.4
19 2008/2009		31.9	31.9	13.8	340.9	147.6	133.8
20 2009/2010		31.9	31.9	13.2	351.1	145.5	132.3
21 2010/2011		31.9	31.9	12.6	361.6	143.4	130.8
22 2011/2012		31.9	31.9	12.1	372.5	141.3	129.3
23 2012/2013		31.9	31.9	11.6	383.7	139.3	127.7
24 2013/2014		31.9	31.9	11.1	395.2	137.3	126.2
25 2014/2015		31.9	31.9	10.6	407.0	135.3	124.7
26 2015/2016		31.9	31.9	10.1	419.2	133.4	123.2
27 2016/2017		31.9	31.9	9.7	431.8	131.5	121.8
28 2017/2018		31.9	31.9	9.3	444.8	129.6	120.3
29 2018/2019		31.9	31.9	8.9	458.1	127.7	118.8
30 2019/2020		31.9	31.9	8.5	471.9	125.9	117.4
31 2020/2021		31.9	31.9	8.1	486.0	124.1	115.9
32 2021/2022		31.9	31.9	7.8	500.6	122.3	114.5
33 2022/2023		31.9	31.9	7.4	515.6	120.5	113.1
34 2023/2024		31.9	31.9	7.1	531.1	118.8	111.7
35 2024/2025		31.9	31.9	6.8	547.0	117.1	110.3
36 2025/2026		31.9	31.9	6.5	563.4	115.4	108.9
37 2026/2027		31.9	31.9	6.2	580.3	113.7	107.5
38 2027/2028		31.9	31.9	6.0	597.7	112.1	106.1
39 2028/2029		31.9	31.9	5.7	615.7	110.5	104.8
40 2029/2030		31.9	31.9	5.5	634.1	108.9	103.4
41 2030/2031		31.9	31.9	5.2	653.2	107.3	102.1
42 2031/2032		31.9	31.9	5.0	672.7	105.8	100.8
43 2032/2033		31.9	31.9	4.8	692.9	104.3	99.5
44 2033/2034		31.9	31.9	4.6	713.7	102.8	98.2
45 2034/2035		31.9	31.9	4.4	735.1	101.3	96.9
46 2035/2036		31.9	31.9	4.2	757.2	99.8	95.6
47 2036/2037		31.9	31.9	4.0	779.9	98.4	94.4 B - C =
48 2037/2038		31.9	31.9	3.8	803.3	97.0	93.1 0.0
49 2038/2039		31.9	31.9	3.7	827.4	95.6	91.9
50 2039/2040		31.9	31.9	3.5	852.2	94.2	90.7 B / C =
							1.00
Total	6,373.0	1,513.6	7,886.6	6,394.8	22,075.6	6,394.8	0.0



Name of Slope : VERRUGAS - HUACRE  
 E.I.R.R. = 4,7617 %

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	1,458.9		1,458.9	1,392.6		0.0	(1,392.6)
2 1991/1992	1,945.2		1,945.2	1,772.4		0.0	(1,772.4)
3 1992/1993	1,458.9	12.2	1,471.1	1,279.4	87.8	76.4	(1,203.1)
4 1993/1994		24.3	24.3	20.2	175.6	145.8	125.6
5 1994/1995		24.3	24.3	19.3	180.9	143.3	124.1
6 1995/1996		24.3	24.3	18.4	186.3	140.9	122.5
7 1996/1997		24.3	24.3	17.6	191.9	138.5	121.0
8 1997/1998		24.3	24.3	16.8	197.6	136.2	119.5
9 1998/1999		24.3	24.3	16.0	203.6	133.9	117.9
10 1999/2000		24.3	24.3	15.3	209.7	131.7	116.4
11 2000/2001		24.3	24.3	14.6	216.0	129.5	114.9
12 2001/2002		24.3	24.3	13.9	222.4	127.3	113.4
13 2002/2003		24.3	24.3	13.3	229.1	125.1	111.9
14 2003/2004		24.3	24.3	12.7	236.0	123.0	110.4
15 2004/2005		24.3	24.3	12.1	243.1	121.0	108.9
16 2005/2006		24.3	24.3	11.6	250.3	118.9	107.4
17 2006/2007		24.3	24.3	11.0	257.9	116.9	105.9
18 2007/2008		24.3	24.3	10.5	265.6	115.0	104.4
19 2008/2009		24.3	24.3	10.0	273.6	113.0	103.0
20 2009/2010		24.3	24.3	9.6	281.8	111.1	101.5
21 2010/2011		24.3	24.3	9.2	290.2	109.3	100.1
22 2011/2012		24.3	24.3	8.7	298.9	107.4	98.7
23 2012/2013		24.3	24.3	8.3	307.9	105.6	97.3
24 2013/2014		24.3	24.3	8.0	317.1	103.8	95.9
25 2014/2015		24.3	24.3	7.6	326.6	102.1	94.5
26 2015/2016		24.3	24.3	7.3	336.4	100.4	93.1
27 2016/2017		24.3	24.3	6.9	346.5	98.7	91.8
28 2017/2018		24.3	24.3	6.6	356.9	97.0	90.4
29 2018/2019		24.3	24.3	6.3	367.6	95.4	89.1
30 2019/2020		24.3	24.3	6.0	378.7	93.8	87.8
31 2020/2021		24.3	24.3	5.7	390.0	92.2	86.5
32 2021/2022		24.3	24.3	5.5	401.7	90.7	85.2
33 2022/2023		24.3	24.3	5.2	413.8	89.1	83.9
34 2023/2024		24.3	24.3	5.0	426.2	87.6	82.6
35 2024/2025		24.3	24.3	4.8	439.0	86.2	81.4
36 2025/2026		24.3	24.3	4.6	452.2	84.7	80.2
37 2026/2027		24.3	24.3	4.3	465.7	83.3	79.0
38 2027/2028		24.3	24.3	4.2	479.7	81.9	77.7
39 2028/2029		24.3	24.3	4.0	494.1	80.5	76.6
40 2029/2030		24.3	24.3	3.8	508.9	79.2	75.4
41 2030/2031		24.3	24.3	3.6	524.2	77.8	74.2
42 2031/2032		24.3	24.3	3.4	539.9	76.5	73.1
43 2032/2033		24.3	24.3	3.3	556.1	75.2	72.0
44 2033/2034		24.3	24.3	3.1	572.8	74.0	70.8
45 2034/2035		24.3	24.3	3.0	590.0	72.7	69.7
46 2035/2036		24.3	24.3	2.9	607.7	71.5	68.6
47 2036/2037		24.3	24.3	2.7	625.9	70.3	67.6 B - C =
48 2037/2038		24.3	24.3	2.6	644.7	69.1	66.5 0.0
49 2038/2039		24.3	24.3	2.5	664.0	68.0	65.5
50 2039/2040		24.3	24.3	2.4	683.9	66.8	64.4 B / C =
<b>Total</b>	<b>4,863.0</b>	<b>1,155.0</b>	<b>6,018.0</b>	<b>4,838.7</b>	<b>17,718.3</b>	<b>4,838.7</b>	<b>0.0</b>

1.00

Name of Slope : LINDAY - YAMAJUNE

Economic development rate : 3%/year

E.I.R.R. = 4.4735 %

Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year	Fiscal Year	COST STREAM			Discounted		Net Present Worth	
		Const- ruction Cost	O & M Cost	Cost Total	Cost Total	Annual Benefit		Total Benefit
1	1990/1991	1,523.1		1,523.1	1,457.9		0.0	(1,457.9)
2	1991/1992	2,030.8		2,030.8	1,860.6		0.0	(1,860.6)
3	1992/1993	1,523.1	12.7	1,535.8	1,346.8	86.6	76.0	(1,270.8)
4	1993/1994		25.4	25.4	21.3	173.3	145.5	124.2
5	1994/1995		25.4	25.4	20.4	178.5	143.4	123.0
6	1995/1996		25.4	25.4	19.5	183.8	141.4	121.9
7	1996/1997		25.4	25.4	18.7	189.4	139.4	120.7
8	1997/1998		25.4	25.4	17.9	195.0	137.4	119.5
9	1998/1999		25.4	25.4	17.1	200.9	135.5	118.4
10	1999/2000		25.4	25.4	16.4	206.9	133.6	117.2
11	2000/2001		25.4	25.4	15.7	213.1	131.7	116.0
12	2001/2002		25.4	25.4	15.0	219.5	129.8	114.8
13	2002/2003		25.4	25.4	14.4	226.1	128.0	113.6
14	2003/2004		25.4	25.4	13.8	232.9	126.2	112.4
15	2004/2005		25.4	25.4	13.2	239.9	124.4	111.3
16	2005/2006		25.4	25.4	12.6	247.1	122.7	110.1
17	2006/2007		25.4	25.4	12.1	254.5	120.9	108.9
18	2007/2008		25.4	25.4	11.5	262.1	119.2	107.7
19	2008/2009		25.4	25.4	11.1	270.0	117.5	106.5
20	2009/2010		25.4	25.4	10.6	278.1	115.9	105.3
21	2010/2011		25.4	25.4	10.1	286.4	114.3	104.1
22	2011/2012		25.4	25.4	9.7	295.0	112.6	103.0
23	2012/2013		25.4	25.4	9.3	303.9	111.1	101.8
24	2013/2014		25.4	25.4	8.9	313.0	109.5	100.6
25	2014/2015		25.4	25.4	8.5	322.4	107.9	99.4
26	2015/2016		25.4	25.4	8.1	332.0	106.4	98.3
27	2016/2017		25.4	25.4	7.8	342.0	104.9	97.1
28	2017/2018		25.4	25.4	7.5	352.3	103.4	96.0
29	2018/2019		25.4	25.4	7.1	362.8	102.0	94.8
30	2019/2020		25.4	25.4	6.8	373.7	100.5	93.7
31	2020/2021		25.4	25.4	6.5	384.9	99.1	92.6
32	2021/2022		25.4	25.4	6.3	396.5	97.7	91.5
33	2022/2023		25.4	25.4	6.0	408.4	96.3	90.4
34	2023/2024		25.4	25.4	5.7	420.6	95.0	89.3
35	2024/2025		25.4	25.4	5.5	433.2	93.7	88.2
36	2025/2026		25.4	25.4	5.3	446.2	92.3	87.1
37	2026/2027		25.4	25.4	5.0	459.6	91.0	86.0
38	2027/2028		25.4	25.4	4.8	473.4	89.7	84.9
39	2028/2029		25.4	25.4	4.6	487.6	88.5	83.9
40	2029/2030		25.4	25.4	4.4	502.2	87.2	82.8
41	2030/2031		25.4	25.4	4.2	517.3	86.0	81.8
42	2031/2032		25.4	25.4	4.0	532.8	84.8	80.7
43	2032/2033		25.4	25.4	3.9	548.8	83.6	79.7
44	2033/2034		25.4	25.4	3.7	565.3	82.4	78.7
45	2034/2035		25.4	25.4	3.5	582.2	81.2	77.7
46	2035/2036		25.4	25.4	3.4	599.7	80.1	76.7
47	2036/2037		25.4	25.4	3.2	617.7	79.0	75.7 B - C =
48	2037/2038		25.4	25.4	3.1	636.2	77.9	74.8 0.0
49	2038/2039		25.4	25.4	3.0	655.3	76.8	73.8
50	2039/2040		25.4	25.4	2.8	675.0	75.7	72.8 B / C =
								1.00
Total		5,077.0	1,205.8	6,282.8	5,099.3	17,484.3	5,099.3	(0.0)

Name of Slope : CHACAMAZA - BARRANCO Economic development rate : 3%/year  
 E.I.R.R. = 1.0150 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost	Total Cost	Annual Benefit	Total Benefit	
1 1990/1991	482.0		482.0	477.2		0.0	(477.2)
2 1991/1992		2.4	2.4	2.4	7.2	7.0	4.6
3 1992/1993		2.4	2.4	2.3	7.4	7.1	4.8
4 1993/1994		2.4	2.4	2.3	7.6	7.3	5.0
5 1994/1995		2.4	2.4	2.3	7.6	7.4	5.1
6 1995/1996		2.4	2.4	2.3	8.1	7.6	5.3
7 1996/1997		2.4	2.4	2.2	8.3	7.7	5.5
8 1997/1998		2.4	2.4	2.2	8.5	7.9	5.7
9 1998/1999		2.4	2.4	2.2	8.8	8.0	5.8
10 1999/2000		2.4	2.4	2.2	9.1	8.2	6.0
11 2000/2001		2.4	2.4	2.2	9.3	8.4	6.2
12 2001/2002		2.4	2.4	2.1	9.6	8.5	6.4
13 2002/2003		2.4	2.4	2.1	9.9	8.7	6.6
14 2003/2004		2.4	2.4	2.1	10.2	8.9	6.8
15 2004/2005		2.4	2.4	2.1	10.5	9.0	7.0
16 2005/2006		2.4	2.4	2.1	10.8	9.2	7.2
17 2006/2007		2.4	2.4	2.0	11.1	9.4	7.4
18 2007/2008		2.4	2.4	2.0	11.5	9.6	7.6
19 2008/2009		2.4	2.4	2.0	11.8	9.8	7.8
20 2009/2010		2.4	2.4	2.0	12.2	10.0	8.0
21 2010/2011		2.4	2.4	1.9	12.5	10.1	8.2
22 2011/2012		2.4	2.4	1.9	12.9	10.3	8.4
23 2012/2013		2.4	2.4	1.9	13.3	10.5	8.6
24 2013/2014		2.4	2.4	1.9	13.7	10.8	8.9
25 2014/2015		2.4	2.4	1.9	14.1	11.0	9.1
26 2015/2016		2.4	2.4	1.9	14.5	11.2	9.3
27 2016/2017		2.4	2.4	1.8	15.0	11.4	9.6
28 2017/2018		2.4	2.4	1.8	15.4	11.6	9.8
29 2018/2019		2.4	2.4	1.8	15.9	11.9	10.1
30 2019/2020		2.4	2.4	1.8	16.4	12.1	10.3
31 2020/2021		2.4	2.4	1.8	16.9	12.3	10.6
32 2021/2022		2.4	2.4	1.7	17.4	12.6	10.8
33 2022/2023		2.4	2.4	1.7	17.9	12.8	11.1
34 2023/2024		2.4	2.4	1.7	18.4	13.1	11.4
35 2024/2025		2.4	2.4	1.7	19.0	13.3	11.6
36 2025/2026		2.4	2.4	1.7	19.5	13.6	11.9
37 2026/2027		2.4	2.4	1.7	20.1	13.9	12.2
38 2027/2028		2.4	2.4	1.6	20.7	14.1	12.5
39 2028/2029		2.4	2.4	1.6	21.4	14.4	12.8
40 2029/2030		2.4	2.4	1.6	22.0	14.7	13.1
41 2030/2031		2.4	2.4	1.6	22.7	15.0	13.4
42 2031/2032		2.4	2.4	1.6	23.3	15.3	13.7
43 2032/2033		2.4	2.4	1.6	24.0	15.6	14.0
44 2033/2034		2.4	2.4	1.5	24.8	15.9	14.3
45 2034/2035		2.4	2.4	1.5	25.5	16.2	14.7
46 2035/2036		2.4	2.4	1.5	26.3	16.5	15.0
47 2036/2037		2.4	2.4	1.5	27.0	16.8	15.3 B - C =
48 2037/2038		2.4	2.4	1.5	27.9	17.2	15.7 0.0
49 2038/2039		2.4	2.4	1.5	28.7	17.5	18.0
50 2039/2040		2.4	2.4	1.5	29.6	17.8	16.4 B / C =
							1.00
Total	482.0	118.1	600.1	568.9	776.4	568.9	0.0

Name of Slope : CHUCUMAYO - CHACAHUARO Economic development rate : 3%/year  
 E.I.R.R. = 3.5083 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	337.2		337.2	325.8		0.0	(325.8)
2 1991/1992	449.6		449.6	419.6		0.0	(419.6)
3 1992/1993	337.2	2.8	340.0	306.6	15.7	14.2	(292.4)
4 1993/1994		5.6	5.6	4.9	31.5	27.4	22.5
5 1994/1995		5.6	5.6	4.7	32.4	27.3	22.6
6 1995/1996		5.6	5.6	4.6	33.4	27.2	22.6
7 1996/1997		5.6	5.6	4.4	34.4	27.0	22.6
8 1997/1998		5.6	5.6	4.3	35.4	26.9	22.6
9 1998/1999		5.6	5.6	4.1	36.5	26.8	22.6
10 1999/2000		5.6	5.6	4.0	37.6	26.6	22.6
11 2000/2001		5.6	5.6	3.8	38.7	26.5	22.7
12 2001/2002		5.6	5.6	3.7	39.9	26.4	22.7
13 2002/2003		5.6	5.6	3.6	41.1	26.2	22.6
14 2003/2004		5.6	5.6	3.5	42.3	26.1	22.6
15 2004/2005		5.6	5.6	3.4	43.6	26.0	22.6
16 2005/2006		5.6	5.6	3.2	44.9	25.9	22.6
17 2006/2007		5.6	5.6	3.1	46.2	25.7	22.6
18 2007/2008		5.6	5.6	3.0	47.6	25.6	22.6
19 2008/2009		5.6	5.6	2.9	49.1	25.5	22.6
20 2009/2010		5.6	5.6	2.8	50.5	25.4	22.5
21 2010/2011		5.6	5.6	2.7	52.0	25.2	22.5
22 2011/2012		5.6	5.6	2.6	53.6	25.1	22.5
23 2012/2013		5.6	5.6	2.5	55.2	25.0	22.4
24 2013/2014		5.6	5.6	2.5	56.9	24.9	22.4
25 2014/2015		5.6	5.6	2.4	58.6	24.7	22.4
26 2015/2016		5.6	5.6	2.3	60.3	24.6	22.3
27 2016/2017		5.6	5.6	2.2	62.1	24.5	22.3
28 2017/2018		5.6	5.6	2.1	64.0	24.4	22.2
29 2018/2019		5.6	5.6	2.1	65.9	24.3	22.2
30 2019/2020		5.6	5.6	2.0	67.9	24.1	22.1
31 2020/2021		5.6	5.6	1.9	69.9	24.0	22.1
32 2021/2022		5.6	5.6	1.9	72.0	23.9	22.0
33 2022/2023		5.6	5.6	1.8	74.2	23.8	22.0
34 2023/2024		5.6	5.6	1.7	76.4	23.7	21.9
35 2024/2025		5.6	5.6	1.7	78.7	23.5	21.9
36 2025/2026		5.6	5.6	1.6	81.1	23.4	21.8
37 2026/2027		5.6	5.6	1.6	83.5	23.3	21.7
38 2027/2028		5.6	5.6	1.5	86.0	23.2	21.7
39 2028/2029		5.6	5.6	1.5	88.6	23.1	21.6
40 2029/2030		5.6	5.6	1.4	91.3	23.0	21.6
41 2030/2031		5.6	5.6	1.4	94.0	22.9	21.5
42 2031/2032		5.6	5.6	1.3	96.8	22.7	21.4
43 2032/2033		5.6	5.6	1.3	99.7	22.6	21.4
44 2033/2034		5.6	5.6	1.2	102.7	22.5	21.3
45 2034/2035		5.6	5.6	1.2	105.8	22.4	21.2
46 2035/2036		5.6	5.6	1.2	109.0	22.3	21.2
47 2036/2037		5.6	5.6	1.1	112.2	22.2	21.1 B - C =
48 2037/2038		5.6	5.6	1.1	115.6	22.1	21.0 0.0
49 2038/2039		5.6	5.6	1.0	119.1	22.0	20.9
50 2039/2040		5.6	5.6	1.0	122.6	21.9	20.9 B / C =
Total	1,124.0	267.0	1,391.0	1,167.9	3,176.7	1,167.9	0.0

1.00

Name of Slope : PARAC - RIO BLANCO  
 E.I.R.R. = 8.9194 %

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	702.0		702.0	644.5		0.0	(644.5)
2 1991/1992	936.0		936.0	789.0		0.0	(789.0)
3 1992/1993	702.0	5.9	707.9	547.8	83.1	64.3	(483.5)
4 1993/1994		11.7	11.7	8.3	166.3	118.1	109.8
5 1994/1995		11.7	11.7	7.6	171.3	111.7	104.1
6 1995/1996		11.7	11.7	7.0	176.4	105.7	98.6
7 1996/1997		11.7	11.7	6.4	181.7	99.9	93.5
8 1997/1998		11.7	11.7	5.9	187.1	94.5	88.6
9 1998/1999		11.7	11.7	5.4	192.8	89.3	83.9
10 1999/2000		11.7	11.7	5.0	198.5	84.5	79.5
11 2000/2001		11.7	11.7	4.6	204.5	79.9	75.3
12 2001/2002		11.7	11.7	4.2	210.6	75.6	71.4
13 2002/2003		11.7	11.7	3.9	217.0	71.5	67.6
14 2003/2004		11.7	11.7	3.5	223.5	67.6	64.0
15 2004/2005		11.7	11.7	3.2	230.2	63.9	60.6
16 2005/2006		11.7	11.7	3.0	237.1	60.4	57.4
17 2006/2007		11.7	11.7	2.7	244.2	57.1	54.4
18 2007/2008		11.7	11.7	2.5	251.5	54.0	51.5
19 2008/2009		11.7	11.7	2.3	259.1	51.1	48.8
20 2009/2010		11.7	11.7	2.1	266.8	48.3	46.2
21 2010/2011		11.7	11.7	1.9	274.8	45.7	43.7
22 2011/2012		11.7	11.7	1.8	283.1	43.2	41.4
23 2012/2013		11.7	11.7	1.6	291.6	40.9	39.2
24 2013/2014		11.7	11.7	1.5	300.3	38.6	37.1
25 2014/2015		11.7	11.7	1.4	309.3	36.5	35.2
26 2015/2016		11.7	11.7	1.3	318.6	34.6	33.3
27 2016/2017		11.7	11.7	1.2	328.2	32.7	31.5
28 2017/2018		11.7	11.7	1.1	338.0	30.9	29.8
29 2018/2019		11.7	11.7	1.0	348.2	29.2	28.2
30 2019/2020		11.7	11.7	0.9	358.6	27.6	26.7
31 2020/2021		11.7	11.7	0.8	369.4	26.1	25.3
32 2021/2022		11.7	11.7	0.8	380.4	24.7	24.0
33 2022/2023		11.7	11.7	0.7	391.8	23.4	22.7
34 2023/2024		11.7	11.7	0.6	403.6	22.1	21.5
35 2024/2025		11.7	11.7	0.6	415.7	20.9	20.3
36 2025/2026		11.7	11.7	0.5	428.2	19.8	19.2
37 2026/2027		11.7	11.7	0.5	441.0	18.7	18.2
38 2027/2028		11.7	11.7	0.5	454.3	17.7	17.2
39 2028/2029		11.7	11.7	0.4	467.9	16.7	16.3
40 2029/2030		11.7	11.7	0.4	481.9	15.8	15.4
41 2030/2031		11.7	11.7	0.4	496.4	14.9	14.6
42 2031/2032		11.7	11.7	0.3	511.3	14.1	13.8
43 2032/2033		11.7	11.7	0.3	526.6	13.4	13.1
44 2033/2034		11.7	11.7	0.3	542.4	12.6	12.4
45 2034/2035		11.7	11.7	0.3	558.7	12.0	11.7
46 2035/2036		11.7	11.7	0.2	575.4	11.3	11.1
47 2036/2037		11.7	11.7	0.2	592.7	10.7	10.5 B - C =
48 2037/2038		11.7	11.7	0.2	610.5	10.1	9.9 0.0
49 2038/2039		11.7	11.7	0.2	628.8	9.6	9.4
50 2039/2040		11.7	11.7	0.2	647.7	9.0	8.9 B / C =
<b>Total</b>	<b>2,340.0</b>	<b>555.8</b>	<b>2,895.8</b>	<b>2,081.0</b>	<b>16,777.0</b>	<b>2,081.0</b>	<b>0.0</b> 1.00

Name of Slope : CONFLUENCE - ALCULA  
 E.I.R.R. = 9.3000 %  
 COST STREAM

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>  
 BENEFIT STREAM

Year Fiscal Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Total Cost	Annual Benefit	Total Benefit	
1 1990/1991	114.0		114.0	104.3		0.0	(104.3)
2 1991/1992		0.6	0.6	0.5	8.0	6.7	6.2
3 1992/1993		0.6	0.6	0.4	8.2	6.3	5.9
4 1993/1994		0.6	0.6	0.4	8.5	5.9	5.5
5 1994/1995		0.6	0.6	0.4	8.7	5.6	5.2
6 1995/1996		0.6	0.6	0.3	9.0	5.3	4.9
7 1996/1997		0.6	0.6	0.3	9.3	5.0	4.7
8 1997/1998		0.6	0.6	0.3	9.6	4.7	4.4
9 1998/1999		0.6	0.6	0.3	9.8	4.4	4.2
10 1999/2000		0.6	0.6	0.2	10.1	4.2	3.9
11 2000/2001		0.6	0.6	0.2	10.4	3.9	3.7
12 2001/2002		0.6	0.6	0.2	10.7	3.7	3.5
13 2002/2003		0.6	0.6	0.2	11.1	3.5	3.3
14 2003/2004		0.6	0.6	0.2	11.4	3.3	3.1
15 2004/2005		0.6	0.6	0.2	11.7	3.1	2.9
16 2005/2006		0.6	0.6	0.1	12.1	2.9	2.8
17 2006/2007		0.6	0.6	0.1	12.5	2.7	2.6
18 2007/2008		0.6	0.6	0.1	12.8	2.6	2.5
19 2008/2009		0.6	0.6	0.1	13.2	2.4	2.3
20 2009/2010		0.6	0.6	0.1	13.6	2.3	2.2
21 2010/2011		0.6	0.6	0.1	14.0	2.2	2.1
22 2011/2012		0.6	0.6	0.1	14.4	2.0	2.0
23 2012/2013		0.6	0.6	0.1	14.9	1.9	1.9
24 2013/2014		0.6	0.6	0.1	15.3	1.8	1.7
25 2014/2015		0.6	0.6	0.1	15.8	1.7	1.6
26 2015/2016		0.6	0.6	0.1	16.3	1.6	1.6
27 2016/2017		0.6	0.6	0.1	16.7	1.5	1.5
28 2017/2018		0.6	0.6	0.0	17.3	1.4	1.4
29 2018/2019		0.6	0.6	0.0	17.8	1.3	1.3
30 2019/2020		0.6	0.6	0.0	18.3	1.3	1.2
31 2020/2021		0.6	0.6	0.0	18.9	1.2	1.2
32 2021/2022		0.6	0.6	0.0	19.4	1.1	1.1
33 2022/2023		0.6	0.6	0.0	20.0	1.1	1.0
34 2023/2024		0.6	0.6	0.0	20.6	1.0	1.0
35 2024/2025		0.6	0.6	0.0	21.2	0.9	0.9
36 2025/2026		0.6	0.6	0.0	21.9	0.9	0.9
37 2026/2027		0.6	0.6	0.0	22.5	0.8	0.8
38 2027/2028		0.6	0.6	0.0	23.2	0.8	0.8
39 2028/2029		0.6	0.6	0.0	23.9	0.7	0.7
40 2029/2030		0.6	0.6	0.0	24.6	0.7	0.7
41 2030/2031		0.6	0.6	0.0	25.3	0.7	0.6
42 2031/2032		0.6	0.6	0.0	26.1	0.6	0.6
43 2032/2033		0.6	0.6	0.0	26.9	0.6	0.6
44 2033/2034		0.6	0.6	0.0	27.7	0.6	0.5
45 2034/2035		0.6	0.6	0.0	28.5	0.5	0.5
46 2035/2036		0.6	0.6	0.0	29.4	0.5	0.5
47 2036/2037		0.6	0.6	0.0	30.2	0.5	0.5 B - C =
48 2037/2038		0.6	0.6	0.0	31.2	0.4	0.4 0.0
49 2038/2039		0.6	0.6	0.0	32.1	0.4	0.4
50 2039/2040		0.6	0.6	0.0	33.1	0.4	0.4 B / C =
Total	114.0	27.9	141.9	109.8	868.2	109.8	(0.0) 1.00

Name of Slope : CASHAHUACRA - REDONDA Economic development rate : 3%/year  
 E.I.R.R. = 3.0150 % Unit : US\$ 10<sup>3</sup>

COST STREAM

BENEFIT STREAM

Year	Fiscal Year	COST STREAM			BENEFIT STREAM			
		Const- ruction Cost	O & M Cost	Discounted Total Cost	Discounted Total Benefit	Discounted Total Benefit	Net Present Worth	
1	1990/1991	429.0		429.0	416.4	0.0	(416.4)	
2	1991/1992		2.1	2.1	2.0	10.2	9.6	7.6
3	1992/1993		2.1	2.1	2.0	10.5	9.6	7.6
4	1993/1994		2.1	2.1	1.9	10.8	9.6	7.7
5	1994/1995		2.1	2.1	1.8	11.1	9.6	7.8
6	1995/1996		2.1	2.1	1.8	11.5	9.6	7.8
7	1996/1997		2.1	2.1	1.7	11.8	9.6	7.9
8	1997/1998		2.1	2.1	1.7	12.2	9.6	7.9
9	1998/1999		2.1	2.1	1.6	12.5	9.6	8.0
10	1999/2000		2.1	2.1	1.6	12.9	9.6	8.0
11	2000/2001		2.1	2.1	1.5	13.3	9.6	8.1
12	2001/2002		2.1	2.1	1.5	13.7	9.6	8.1
13	2002/2003		2.1	2.1	1.5	14.1	9.6	8.1
14	2003/2004		2.1	2.1	1.4	14.5	9.6	8.2
15	2004/2005		2.1	2.1	1.4	15.0	9.6	8.2
16	2005/2006		2.1	2.1	1.3	15.4	9.6	8.3
17	2006/2007		2.1	2.1	1.3	15.9	9.6	8.3
18	2007/2008		2.1	2.1	1.3	16.4	9.6	8.3
19	2008/2009		2.1	2.1	1.2	16.9	9.6	8.4
20	2009/2010		2.1	2.1	1.2	17.4	9.6	8.4
21	2010/2011		2.1	2.1	1.1	17.9	9.6	8.4
22	2011/2012		2.1	2.1	1.1	18.4	9.6	8.5
23	2012/2013		2.1	2.1	1.1	19.0	9.6	8.5
24	2013/2014		2.1	2.1	1.1	19.5	9.6	8.5
25	2014/2015		2.1	2.1	1.0	20.1	9.6	8.6
26	2015/2016		2.1	2.1	1.0	20.7	9.6	8.6
27	2016/2017		2.1	2.1	1.0	21.4	9.6	8.6
28	2017/2018		2.1	2.1	0.9	22.0	9.6	8.6
29	2018/2019		2.1	2.1	0.9	22.7	9.6	8.7
30	2019/2020		2.1	2.1	0.9	23.3	9.6	8.7
31	2020/2021		2.1	2.1	0.9	24.0	9.6	8.7
32	2021/2022		2.1	2.1	0.8	24.8	9.6	8.7
33	2022/2023		2.1	2.1	0.8	25.5	9.6	8.8
34	2023/2024		2.1	2.1	0.8	26.3	9.6	8.8
35	2024/2025		2.1	2.1	0.8	27.1	9.6	8.8
36	2025/2026		2.1	2.1	0.7	27.9	9.6	8.8
37	2026/2027		2.1	2.1	0.7	28.7	9.6	8.8
38	2027/2028		2.1	2.1	0.7	29.6	9.6	8.9
39	2028/2029		2.1	2.1	0.7	30.5	9.6	8.9
40	2029/2030		2.1	2.1	0.7	31.4	9.6	8.9
41	2030/2031		2.1	2.1	0.6	32.3	9.6	8.9
42	2031/2032		2.1	2.1	0.6	33.3	9.6	8.9
43	2032/2033		2.1	2.1	0.6	34.3	9.6	9.0
44	2033/2034		2.1	2.1	0.6	35.3	9.6	9.0
45	2034/2035		2.1	2.1	0.6	36.4	9.6	9.0
46	2035/2036		2.1	2.1	0.5	37.5	9.6	9.0
47	2036/2037		2.1	2.1	0.5	38.6	9.6	9.0 B - C =
48	2037/2038		2.1	2.1	0.5	39.7	9.5	9.0 0.0
49	2038/2039		2.1	2.1	0.5	40.9	9.5	9.0
50	2039/2040		2.1	2.1	0.5	42.2	9.5	9.1 B / C =
							1.00	
Total		429.0	105.1	534.1	469.4	1,107.3	469.4	0.0

Name of Slope : REDONDA - INFIERNILLO  
 E.I.R.R. = 2.855 %  
 COST STREAM

Economic development rate : 3%/year  
 Unit : US\$ 10<sup>3</sup>  
 BENEFIT STREAM

Year Fisical Year	Const- ruction Cost	O & M Cost	Discounted		Discounted		Net Present Worth
			Cost Total	Cost Total	Annual Benefit	Total Benefit	
1 1990/1991	345.0		345.0	335.4		0.0	(335.4)
2 1991/1992		1.7	1.7	1.6	7.9	7.5	5.9
3 1992/1993		1.7	1.7	1.6	8.2	7.5	5.9
4 1993/1994		1.7	1.7	1.5	8.4	7.5	6.0
5 1994/1995		1.7	1.7	1.5	8.7	7.5	6.0
6 1995/1996		1.7	1.7	1.5	8.9	7.5	6.1
7 1996/1997		1.7	1.7	1.4	9.2	7.5	6.1
8 1997/1998		1.7	1.7	1.4	9.5	7.5	6.2
9 1998/1999		1.7	1.7	1.3	9.7	7.6	6.2
10 1999/2000		1.7	1.7	1.3	10.0	7.6	6.3
11 2000/2001		1.7	1.7	1.3	10.3	7.6	6.3
12 2001/2002		1.7	1.7	1.2	10.6	7.6	6.4
13 2002/2003		1.7	1.7	1.2	11.0	7.6	6.4
14 2003/2004		1.7	1.7	1.2	11.3	7.6	6.4
15 2004/2005		1.7	1.7	1.1	11.6	7.6	6.5
16 2005/2006		1.7	1.7	1.1	12.0	7.6	6.5
17 2006/2007		1.7	1.7	1.1	12.3	7.6	6.6
18 2007/2008		1.7	1.7	1.0	12.7	7.7	6.6
19 2008/2009		1.7	1.7	1.0	13.1	7.7	6.7
20 2009/2010		1.7	1.7	1.0	13.5	7.7	6.7
21 2010/2011		1.7	1.7	1.0	13.9	7.7	6.7
22 2011/2012		1.7	1.7	0.9	14.3	7.7	6.8
23 2012/2013		1.7	1.7	0.9	14.7	7.7	6.8
24 2013/2014		1.7	1.7	0.9	15.2	7.7	6.8
25 2014/2015		1.7	1.7	0.9	15.6	7.7	6.9
26 2015/2016		1.7	1.7	0.8	16.1	7.7	6.9
27 2016/2017		1.7	1.7	0.8	16.6	7.8	6.9
28 2017/2018		1.7	1.7	0.8	17.1	7.8	7.0
29 2018/2019		1.7	1.7	0.8	17.6	7.8	7.0
30 2019/2020		1.7	1.7	0.7	18.1	7.8	7.0
31 2020/2021		1.7	1.7	0.7	18.7	7.8	7.1
32 2021/2022		1.7	1.7	0.7	19.2	7.8	7.1
33 2022/2023		1.7	1.7	0.7	19.8	7.8	7.1
34 2023/2024		1.7	1.7	0.7	20.4	7.8	7.2
35 2024/2025		1.7	1.7	0.6	21.0	7.8	7.2
36 2025/2026		1.7	1.7	0.6	21.6	7.9	7.2
37 2026/2027		1.7	1.7	0.6	22.3	7.9	7.3
38 2027/2028		1.7	1.7	0.6	22.9	7.9	7.3
39 2028/2029		1.7	1.7	0.6	23.6	7.9	7.3
40 2029/2030		1.7	1.7	0.6	24.3	7.9	7.3
41 2030/2031		1.7	1.7	0.5	25.1	7.9	7.4
42 2031/2032		1.7	1.7	0.5	25.8	7.9	7.4
43 2032/2033		1.7	1.7	0.5	26.6	7.9	7.4
44 2033/2034		1.7	1.7	0.5	27.4	7.9	7.4
45 2034/2035		1.7	1.7	0.5	28.2	8.0	7.5
46 2035/2036		1.7	1.7	0.5	29.1	8.0	7.5
47 2036/2037		1.7	1.7	0.5	29.9	8.0	7.5 B - C =
48 2037/2038		1.7	1.7	0.4	30.8	8.0	7.5 0.0
49 2038/2039		1.7	1.7	0.4	31.8	8.0	7.6
50 2039/2040		1.7	1.7	0.4	32.7	8.0	7.6 B / C =
<b>Total</b>	<b>345.0</b>	<b>84.5</b>	<b>429.5</b>	<b>379.4</b>	<b>859.4</b>	<b>379.4</b>	<b>0.0</b> <b>1.00</b>