

## Appendix-1 Physical Configuration of River Channels



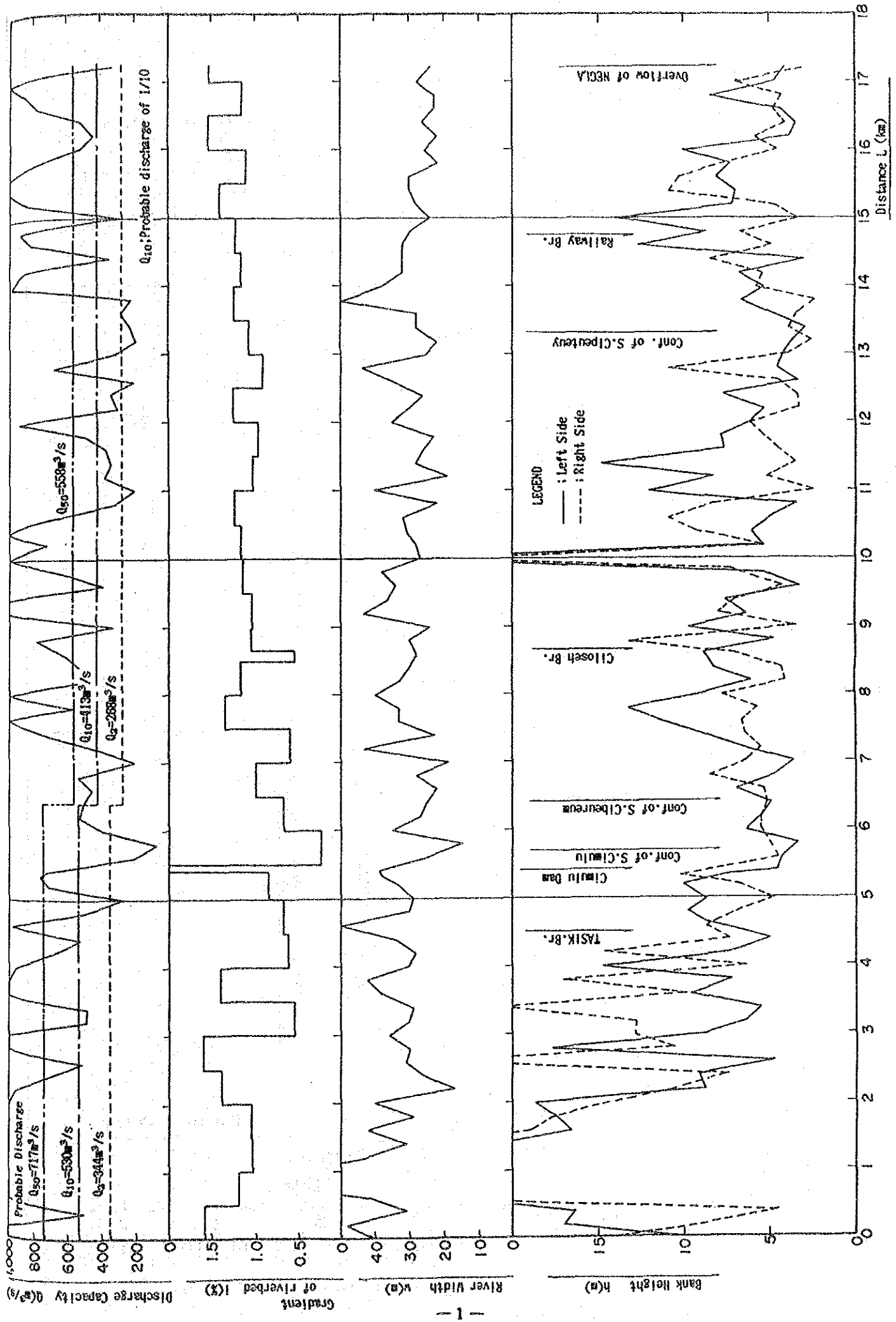


Fig.-1 Physical Configuration of River Channel of S.Ciliösch

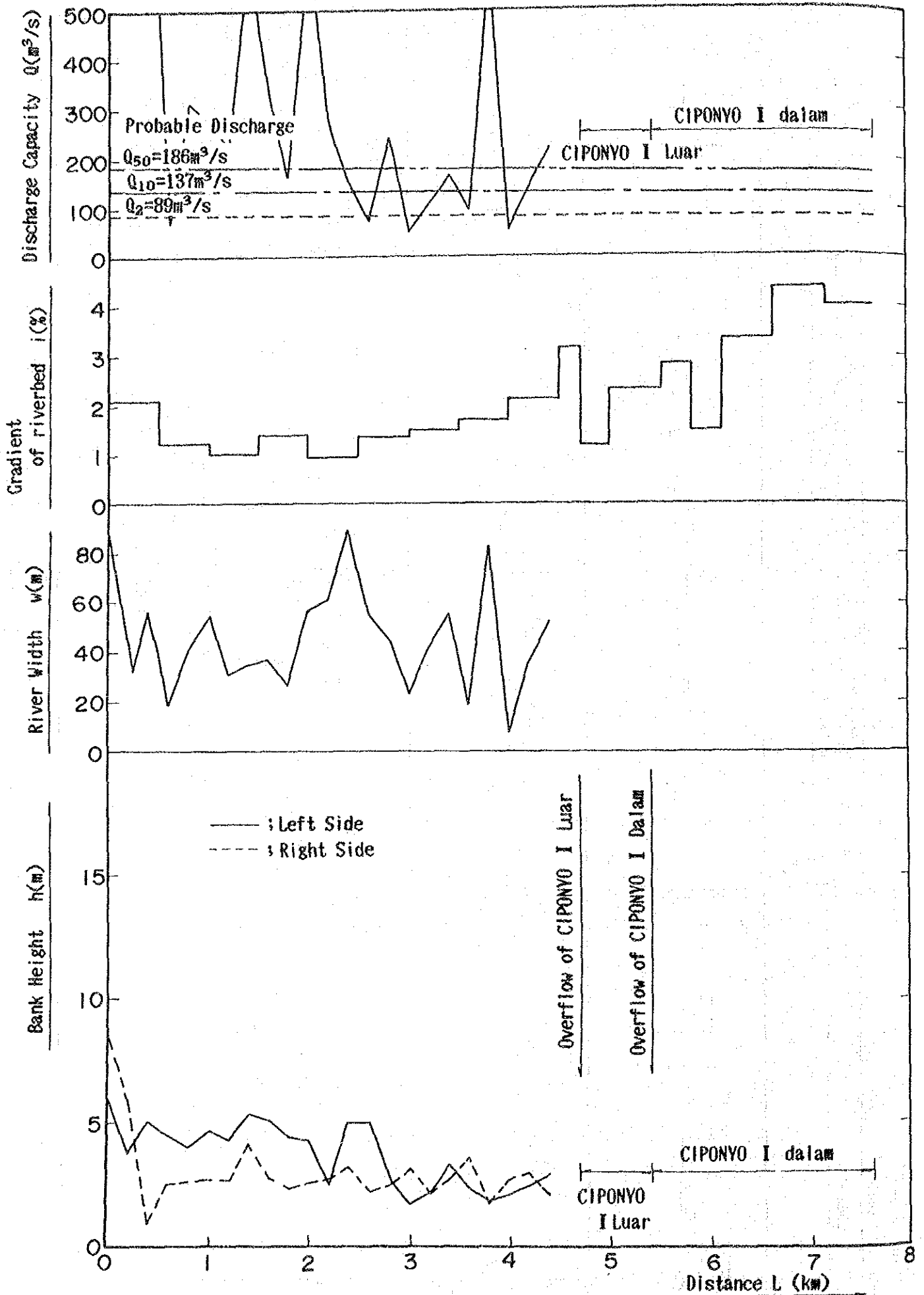


Fig.-2 Physical Configuration of River Channel of S.Cibantaran

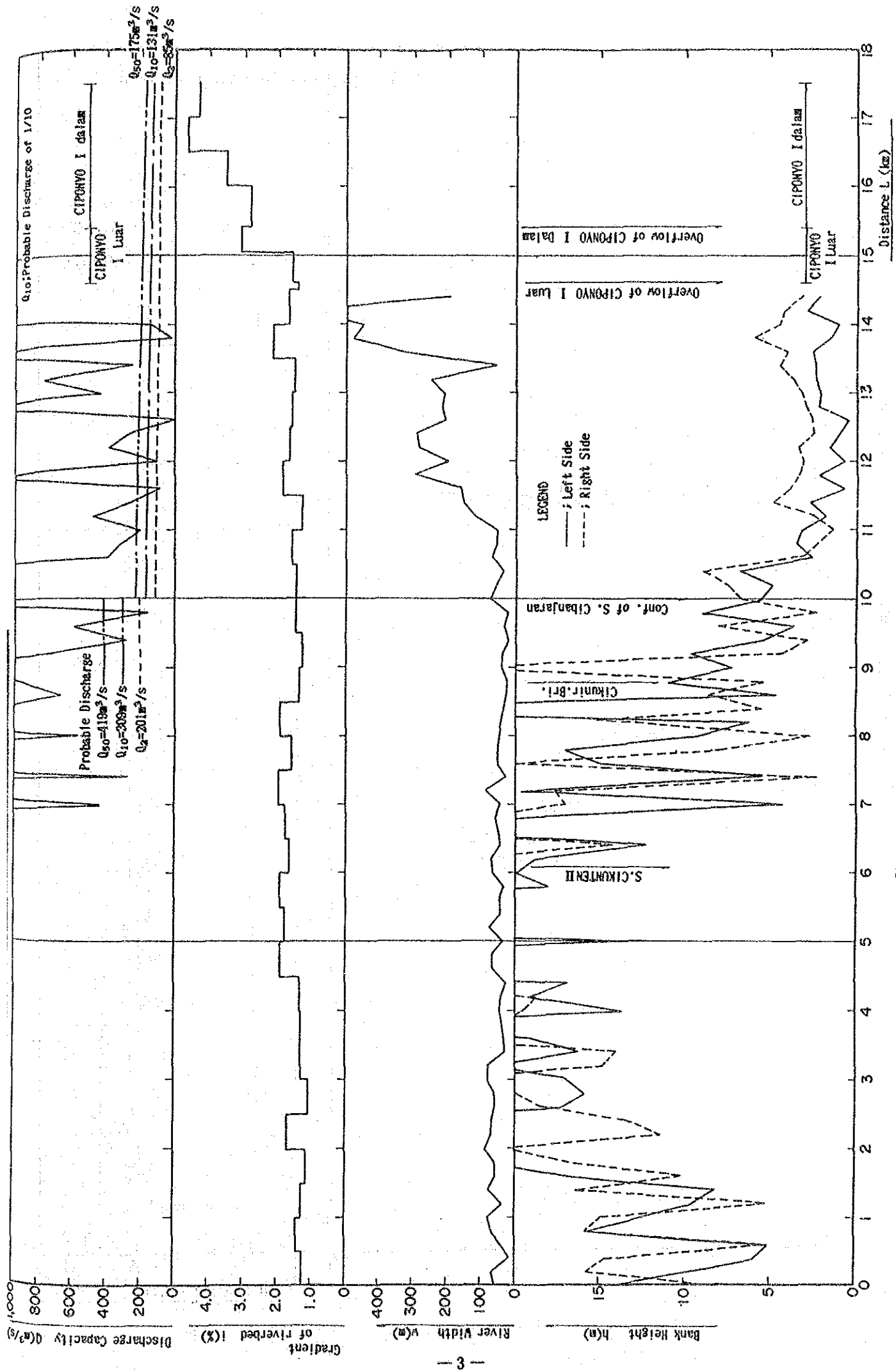


Fig.-3 Physical Configuration of River Channel of S. Cikunir

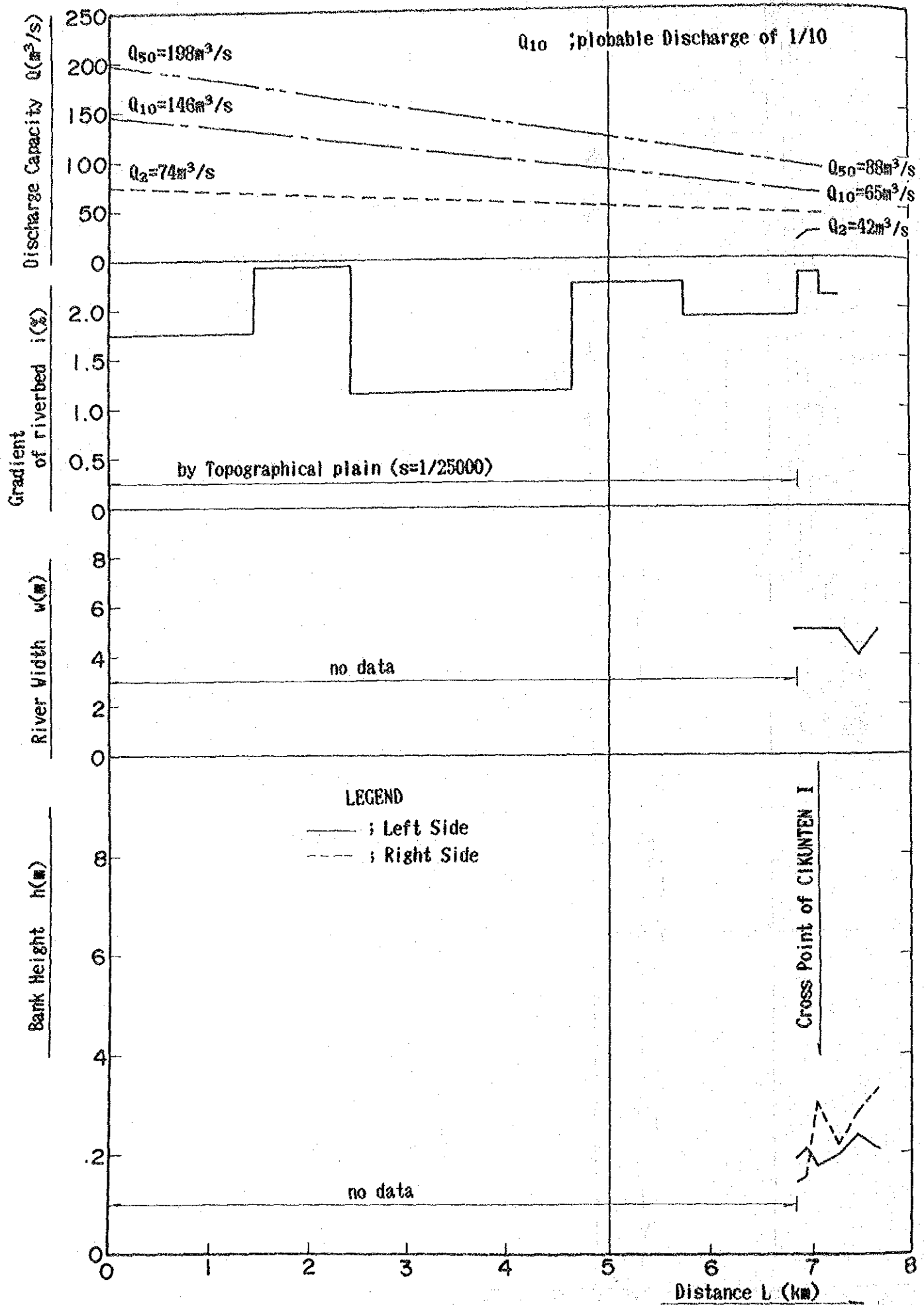


Fig.-4 Physical Configuration of River Channel of S.Cianda

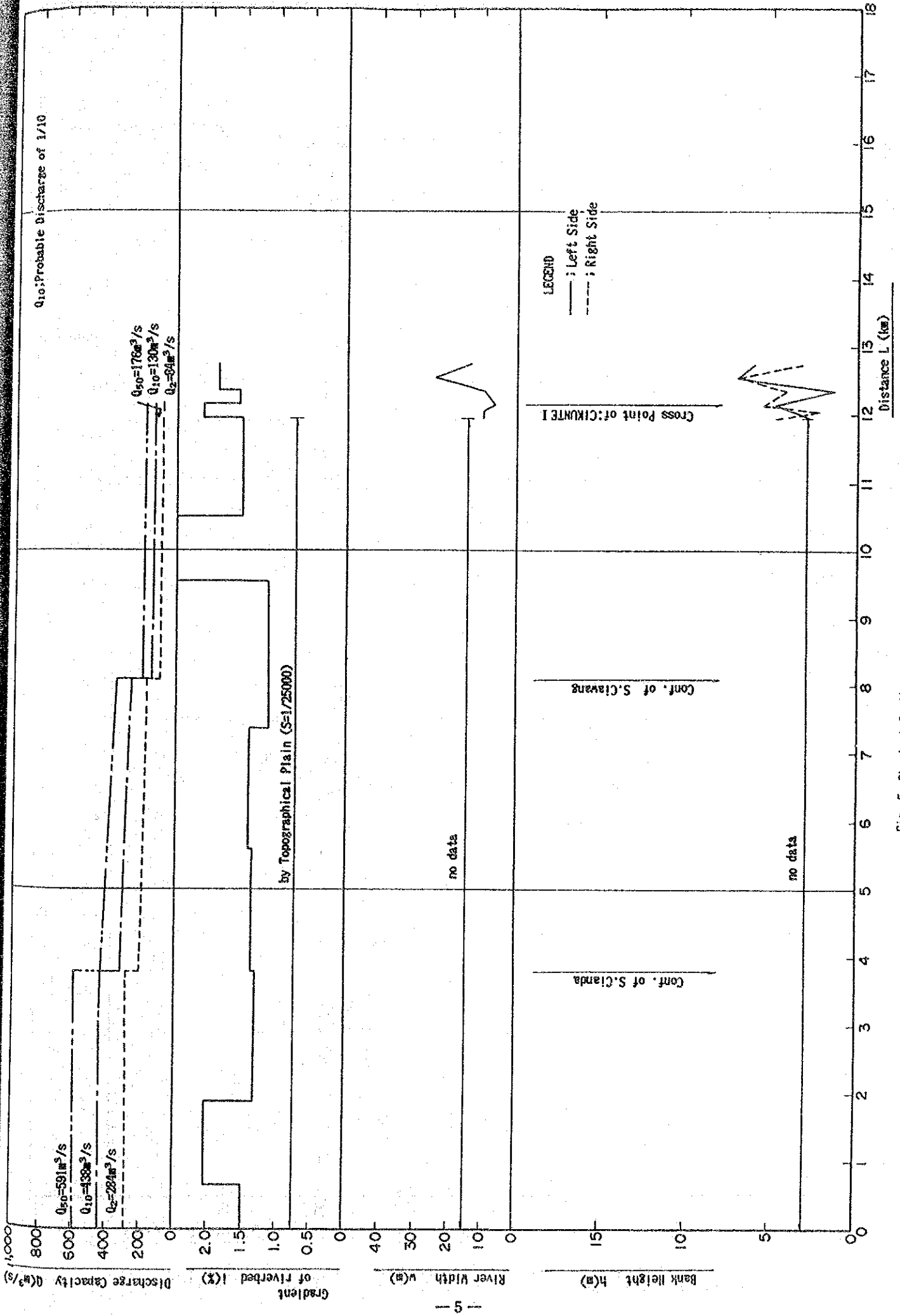


Fig.-5 Physical Configuration of River Channel of S. Cisaruni

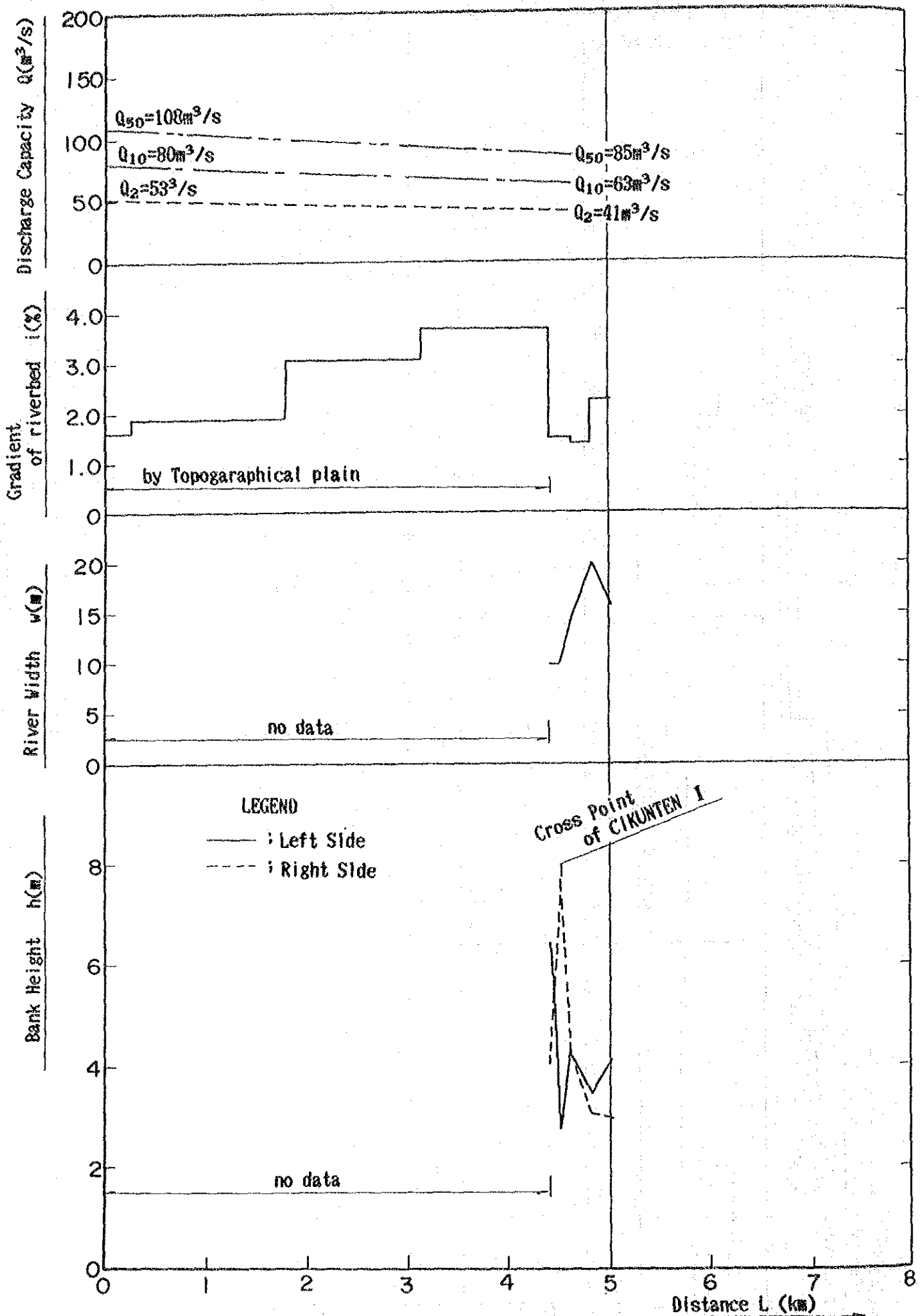


Fig.-6 Physical Configuration of River Channel of S.Cikupang



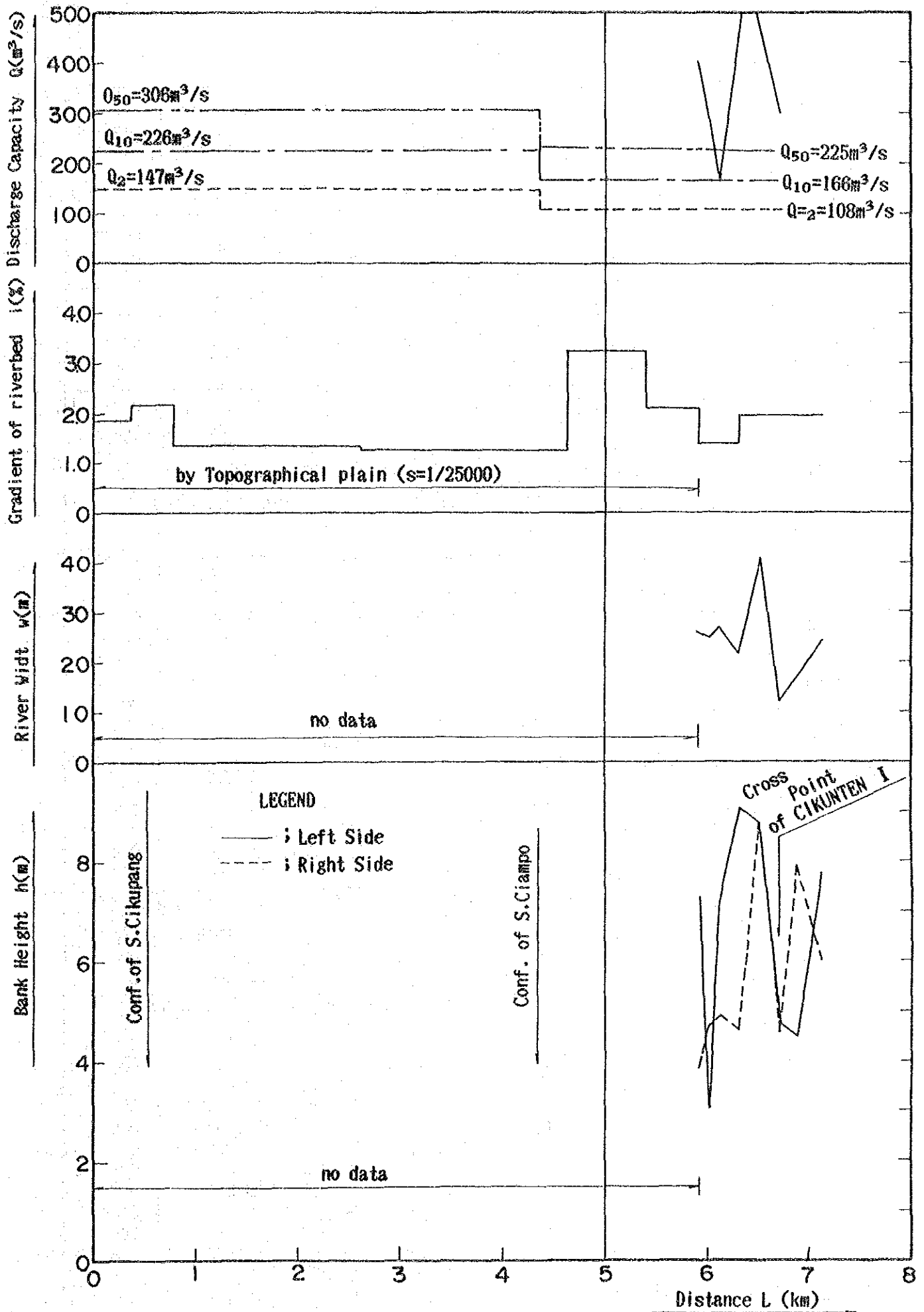


Fig.-7 Physical Configuration of River Channel of S.Cimerah

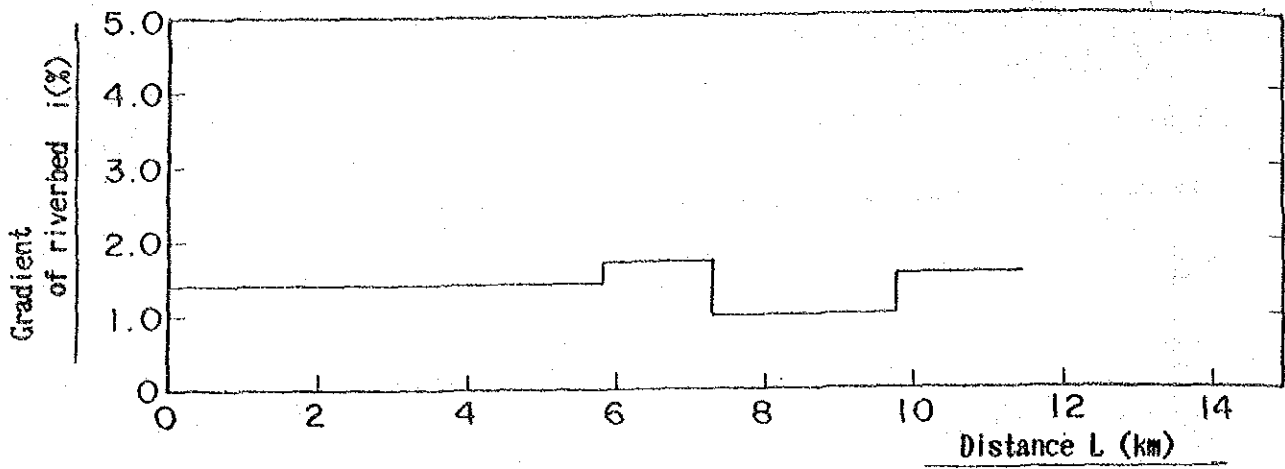


Fig.-8 Gradient of Riverbed of S.Cibereum estimated by Topographical Plain (S=1/25,000)

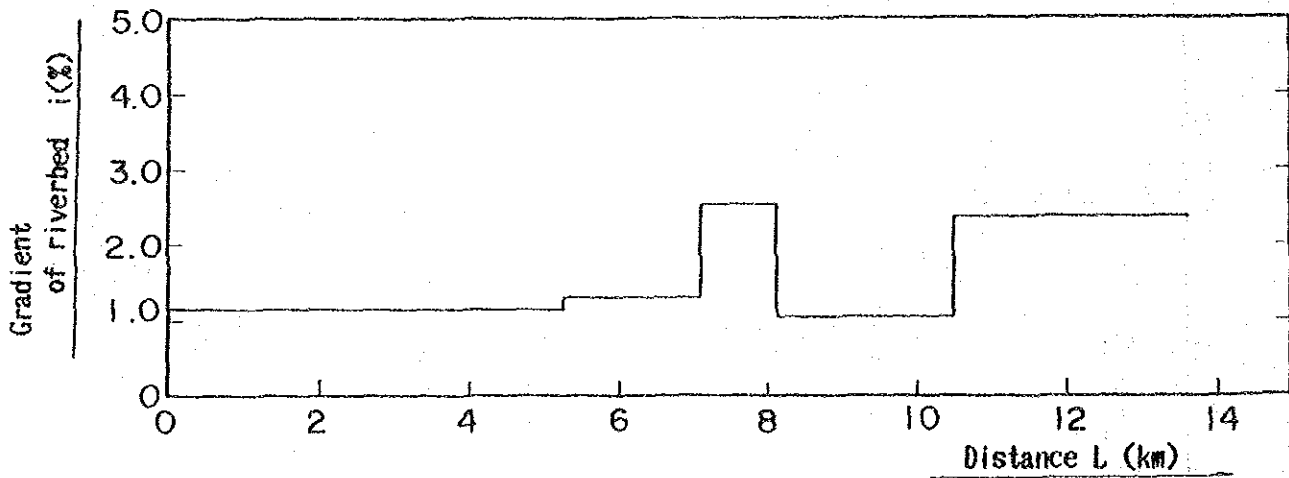


Fig.-9 Gradient of Riverbed of S.Cimulu estimated by Topographical Plain (S=1/25,000)

Table-1.1 Discharge Capacity of S.Ciioseh (1/2)

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
0k000	272.75	282.84	287.28	10.09	14.53	40	2558
200	276.30	293.22	285.15	16.92	8.85	48	2570
400	278.10	295.14	283.26	16.40	4.52	31	511
600	281.16	306.25	307.75	25.09	26.59	42	6788
800	284.40	308.53	306.88	24.13	22.48	78	15611
1k000	286.27	317.57	316.78	31.30	30.51	65	13987
200	287.27	309.28	319.64	22.01	32.37	43	6415
400	289.24	309.93	315.68	20.69	26.44	31	3983
600	292.23	308.85	311.22	16.62	18.99	52	5449
800	294.75	312.20	312.49	17.45	17.74	29	3914
2k000	297.08	315.78	311.55	18.70	14.47	40	3449
200	299.39	308.19	309.80	8.80	10.41	17	930
400	300.83	309.99	308.27	9.16	7.44	26	734
600	305.30	310.06	329.85	4.76	24.55	31	512
800	307.96	325.61	318.45	17.65	10.49	30	2323
3k000	311.73	320.51	324.65	8.78	12.92	36	1497
200	313.42	319.77	326.21	6.35	12.79	25	488
400	314.47	319.96	335.46	5.49	20.99	29	483
600	316.83	326.46	326.72	9.63	9.89	38	2077
800	319.26	326.47	336.32	7.21	17.06	42	1846
4k000	320.40	335.10	326.82	14.70	6.42	30	934
200	322.60	329.93	337.15	7.33	14.55	28	691
400	325.21	330.16	332.45	4.95	7.24	34	521
600	325.53	333.89	333.27	8.36	7.74	51	959
800	326.04	335.72	332.85	9.68	6.81	30	495
5k000	328.03	336.75	332.72	8.72	4.69	29	268
200	329.17	339.31	335.83	10.14	6.66	33	698
344	331.45	338.99	341.60	7.54	10.15	38	759
388	332.72	337.28	341.19	4.56	8.47	39	708
600	339.02	343.30	343.31	4.28	4.29	25	213
800	339.30	342.66	344.29	3.36	4.99	15	68
6k000	340.17	346.51	345.59	6.34	5.42	35	389
200	341.34	346.85	346.84	5.51	5.50	27	525
400	342.95	347.87	348.14	4.92	5.19	25	505
600	344.33	351.32	349.63	6.99	5.30	22	455
800	346.67	351.47	355.14	4.80	8.47	28	534
7k000	348.52	352.06	354.94	3.54	6.42	19	208
200	349.47	355.67	354.93	6.20	5.46	43	416
400	351.64	360.36	358.09	8.72	6.45	23	702
600	352.43	363.77	359.04	11.34	6.61	33	1059
800	354.61	367.82	360.31	13.21	5.70	33	562
8k000	358.20	367.33	365.95	9.13	7.75	40	2018
200	360.65	366.65	364.69	6.00	4.04	33	509
400	362.95	371.19	367.16	8.24	4.21	30	524
600	364.11	372.93	370.96	8.82	6.85	28	614
800	366.89	371.61	380.01	4.72	13.12	30	767
9k000	369.23	378.90	372.61	9.67	3.38	24	327
200	371.77	378.05	379.74	6.28	7.97	43	1126
400	373.07	380.66	380.20	7.59	7.13	36	1143
600	375.71	378.88	379.86	3.17	4.15	34	389
800	377.37	382.69	384.57	5.32	7.20	38	623

Table-1.2 Discharge Capacity of S.Ciloseh (2/2)

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
10k000	360.05	387.35	384.60	27.30	24.55	27	977
200	382.75	388.08	387.84	5.33	5.09	28	712
400	384.67	390.65	393.80	5.98	9.13	31	1062
600	387.08	392.01	397.96	4.93	10.88	32	667
800	389.78	393.20	398.05	3.42	8.27	22	305
11k000	392.00	404.14	394.57	12.14	2.57	40	201
200	393.59	401.87	398.64	8.28	5.05	19	372
400	396.28	410.95	399.73	14.67	3.45	28	336
600	397.62	405.23	402.10	7.61	4.48	26	361
800	399.86	407.69	405.17	7.83	5.31	23	486
12k000	401.92	408.01	407.98	6.09	6.06	35	902
200	404.32	409.57	407.53	5.25	3.21	30	299
400	406.59	414.24	409.87	7.65	3.28	26	334
600	408.66	411.94	413.04	3.28	4.38	34	210
800	411.38	415.93	422.24	4.55	10.86	43	672
13k000	412.73	416.91	416.62	4.18	3.89	25	318
200	415.08	418.73	417.57	3.65	2.49	22	185
400	417.33	420.17	421.15	2.84	3.82	28	223
600	418.86	423.58	422.26	4.72	3.40	28	275
800	422.20	428.81	424.51	6.61	2.31	50	223
14k000	424.47	429.74	430.20	5.27	5.73	38	978
200	426.92	433.61	432.29	6.69	5.37	32	873
400	429.01	431.93	437.43	2.92	8.42	32	345
600	431.53	444.17	436.38	12.64	4.85	32	805
800	433.72	442.42	440.40	8.70	6.68	30	893
15k000	436.04	449.94	439.38	13.90	3.34	24	277
200	439.38	446.54	444.11	7.16	4.73	28	830
400	441.16	448.11	452.02	6.95	10.86	30	1457
600	443.93	452.05	454.28	8.12	10.35	30	1335
800	445.10	452.37	452.97	7.27	7.87	22	757
16k000	448.54	458.66	453.11	10.12	4.57	26	513
200	451.53	455.32	457.34	3.79	5.81	22	434
400	454.47	457.93	458.58	3.46	4.11	26	506
600	456.96	461.30	461.74	4.34	4.78	23	766
800	458.97	467.45	463.24	8.48	4.27	23	851
17k000	461.94	466.70	468.87	4.76	6.93	28	1381
200	464.47	468.66	467.54	4.19	3.07	22	324

(Over Flow of Sand Pocket NEGLA)

Table-2.1 Discharge Capacity of S.Cikunir (1/2)

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
0k000	271.33	285.64	279.58	14.31	8.25	58	3470
200	274.13	284.05	289.82	9.92	15.69	69	5119
400	276.61	282.58	291.25	5.97	14.64	35	1117
600	279.18	284.24	284.34	5.06	5.16	42	1055
800	281.46	297.19	297.29	15.73	15.83	69	10771
1k000	284.45	297.06	299.25	12.61	14.80	79	7356
200	287.31	296.92	292.58	9.61	5.27	38	1202
400	289.27	297.45	305.55	8.18	16.28	77	4831
600	292.62	309.56	302.95	16.94	10.33	59	4576
800	294.75	316.52	311.36	21.77	16.61	60	8832
2k000	296.92	318.45	317.68	21.53	20.76	85	15081
200	300.99	321.69	312.26	20.70	11.27	70	6482
400	303.53	332.74	316.90	29.21	13.37	67	9265
600	306.26	323.51	324.65	17.25	18.39	59	9152
800	308.37	324.34	328.53	15.97	20.16	62	8802
3k000	310.70	327.61	335.59	16.91	24.89	81	10035
200	313.63	335.13	328.33	21.50	14.70	78	8342
400	316.78	332.98	330.74	16.20	13.96	27	2941
600	318.46	337.59	344.33	19.13	25.87	32	3636
800	321.05	350.66	342.35	29.61	21.30	37	6850
4k000	323.83	337.52	343.32	13.69	19.49	45	5233
200	326.62	345.83	345.35	19.21	18.73	41	6840
400	328.94	345.87	362.25	16.93	33.31	31	3961
600	331.77	370.32	362.23	38.55	30.46	65	21355
800	334.48	393.64	368.10	59.16	33.62	66	25333
5k000	340.06	353.68	364.58	13.62	24.52	34	3010
200	342.21	378.36	374.80	36.15	32.59	73	24877
400	347.12	380.23	373.85	33.11	26.73	43	9937
600	350.46	388.84	390.07	38.38	39.61	47	16985
800	355.42	373.54	384.14	18.12	28.72	36	7322
6k000	358.56	378.48	379.02	19.92	20.46	67	14499
200	362.04	380.84	386.14	18.80	24.10	71	10299
400	365.30	377.72	379.56	12.42	14.26	42	3710
600	368.72	392.20	394.32	23.48	25.60	51	11878
800	372.40	392.07	395.12	19.67	22.72	58	12599
7k000	375.64	379.89	392.65	4.25	17.01	43	436
200	381.53	401.09	399.27	19.56	17.74	86	21527
400	384.49	389.84	386.72	5.35	2.23	29	284
600	386.69	401.66	407.05	14.97	20.36	53	6938
800	389.13	406.14	397.27	17.01	8.14	52	3098
8k000	393.40	402.85	396.03	9.45	2.63	48	576
200	395.85	402.02	411.09	6.17	15.24	42	1450
400	399.55	430.85	405.00	31.30	5.45	34	1176
600	403.27	407.97	411.87	4.70	8.60	27	672
800	405.85	416.80	411.72	10.95	5.35	27	927
9k000	409.77	417.03	433.67	7.26	23.90	43	1780
200	411.90	421.62	416.16	9.72	4.26	41	716
400	414.49	419.88	417.24	5.39	2.75	22	141
600	417.25	420.78	425.26	3.53	8.01	33	594
800	420.32	429.30	422.62	8.98	2.30	25	160

Table-2.2 Discharge Capacity of S.Cikunir (2/2)

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
(Confluence of Cibajaran)							
10k000	423.34	428.68	430.13	5.34	6.79	73	1631
200	426.63	431.56	434.11	4.93	7.48	58	1084
400	428.16	435.01	437.16	6.85	9.00	38	2137
600	432.34	434.87	435.31	2.53	2.97	70	405
800	434.95	438.42	437.15	3.47	2.20	57	325
11k000	438.56	441.78	439.95	3.22	1.39	54	206
200	441.99	443.83	444.57	1.84	2.58	120	484
(Sand Pocket Ciponyo II)							
400	443.06	445.77	447.92	2.71	4.86	152	260
600	447.20	447.97	451.12	0.77	3.92	159	95
800	450.18	452.42	453.47	2.24	3.29	294	1148
12k000	454.14	454.85	457.21	0.71	3.07	198	106
200	457.03	458.61	460.39	1.58	3.36	285	391
400	460.91	461.99	463.46	1.08	2.55	288	268
600	464.54	465.01	467.13	0.47	2.59	208	6
800	467.66	469.91	470.63	2.25	2.97	220	1323
13k000	470.40	472.50	473.61	2.10	3.21	211	433
200	473.70	476.07	477.33	2.37	3.63	251	768
400	476.29	478.69	480.75	2.40	4.46	59	252
600	480.16	482.69	484.19	2.53	4.03	322	1366
800	484.06	485.50	490.03	1.44	5.97	479	27
14k000	488.49	489.57	492.90	1.08	4.41	448	144
200	492.28	495.20	496.52	2.92	4.24	625	6943
400	496.30	498.41	499.38	2.11	3.08	194	2132
600							
(Overflow of CIPONYO I Luar)							

Table-3 Discharge Capacity of S.Cibanjara

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
(Confluence of Ciknir)							
0k000	424.46	430.51	433.06	6.05	8.60	89	2603
200	426.70	430.52	432.78	3.82	6.08	32	537
400	431.84	436.85	435.81	5.01	3.97	57	780
600	436.47	440.94	438.97	4.47	2.50	19	76
800	438.68	442.74	441.32	4.06	2.64	42	313
1k000	440.93	445.55	443.60	4.62	2.67	54	271
200	443.35	447.68	446.04	4.33	2.69	31	218
400	444.45	449.75	448.59	5.30	4.14	35	600
600	447.16	452.26	449.91	5.10	2.75	37	339
800	450.17	454.57	452.57	4.40	2.40	27	171
2k000	454.98	459.30	457.56	4.32	2.58	57	614
200	454.71	457.18	457.49	2.47	2.78	61	292
400	456.57	461.60	459.80	5.03	3.23	89	154
600	459.12	464.15	461.33	5.03	2.21	55	74
800	461.73	464.35	464.22	2.62	2.49	45	242
3k000	464.74	466.44	467.91	1.70	3.17	23	58
200	467.78	469.94	469.89	2.16	2.11	42	103
400	470.07	473.35	472.83	3.28	2.76	56	166
600	473.86	476.21	477.47	2.35	3.61	19	93
800	477.97	479.91	479.80	1.94	1.87	83	601
4k000	480.63	482.80	483.36	2.17	2.73	8	56
200	485.86	488.34	488.83	2.48	2.97	36	137
400	489.95	492.82	492.02	2.87	2.07	35	214
600							
(Overflow of CIPONYO I Luar)							

Table-4 Discharge Capacity of S.Cianda

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
- 0k200	470.49	472.42	471.94	1.93	1.45	5	18
- 100	472.58	474.72	474.15	2.14	1.57	5	23
0k000							
0k000	475.12	476.86	478.18	1.74	3.06	5	25
200	479.33	481.32	481.51	1.99	2.18	5	
400	483.09	485.47	485.98	2.38	2.89	4	
600	486.55	488.67	489.87	2.12	3.32	5	

Table-5 Discharge Capacity of S.Cisarni

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
- 0k200	472.18	475.09	476.95	2.91	4.77	9	117
- 100	475.29	479.10	477.69	3.81	2.40	10	104
0k000	476.45						
0k000	479.06	483.90	484.56	4.84	5.50	7	237
200	482.22	483.58	486.39	1.36	4.17	10	
400	484.85	491.87	491.73	7.02	6.88	25	
600	489.78	495.84	492.96	6.06	3.18	14	
800	495.07						
1k000	500.88						

Table-6 Discharge Capacity of S.Cikupang

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
- 0k200	482.10	488.55	486.18	6.45	10	114	
- 100	484.36	487.15	491.72	7.36	10	92	
0k000	484.99						
0k000	488.99	493.26	493.17	4.18	14	313	
200	491.73	495.21	494.78	3.05	20		
400	496.25	500.38	499.19	2.94	16		

Table-7 Discharge Capacity of S.Cimerah

Distance Mark	Altitude of Riverbed (EL.m)	Altitude of Top of Bank (EL.m)		Height of Bank (m)		River Width (m)	Discharge Capacity (m <sup>3</sup> /s)
		Left Side	Right Side	Left Side	Right Side		
- 0k800	484.72	492.02	488.60	7.30	3.88	26	401
- 700	486.26	489.39	490.96	3.13	4.70	25	
- 600	488.03	495.29	490.06	7.26	4.89	27	171
- 400	490.33	499.41	494.96	9.08	4.63	22	468
- 200	493.82	502.61	502.68	8.79	8.86	41	2132
0k000	498.09	502.84	502.67	4.75	4.58	12	302
185	501.68	506.21	509.61	4.53	7.93	17	
400	505.82	513.58	511.85	7.76	6.03	24	
600	510.83						
800	514.82						
1k000	518.92						
200	522.79						
400	527.70						



Table-8 Heigt and Gradient of Riverbed

S.Ciloseh				S.Ciknir			
Distance (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed		Distance (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed	
0k000	272.75	-	-	0k000	271.15	-	-
0k500	280.70	0.0159	1/63	0k500	277.35	0.0124	1/81
1k000	286.27	0.0120	1/83	1k000	284.45	0.0142	1/701
1k500	291.49	0.0104	1/96	1k456	290.23	0.0127	1/79
2k000	296.73	0.0105	1/95	1k500	291.13	0.0205	1/49
2k500	303.73	0.0140	1/71	2k000	296.92	0.0116	1/86
3k000	311.73	0.0160	1/63	2k500	305.36	0.0169	1/59
3k500	314.49	0.0055	1/181	3k000	310.70	0.0107	1/94
4k000	321.51	0.0140	1/71	3k500	317.29	0.0132	1/76
4k500	324.62	0.0062	1/161	4k000	323.83	0.0131	1/76
(Tasik. Bridge)				4k500	330.50	0.0133	1/75
5k000	328.03	0.0068	1/147	5k000	340.06	0.0191	1/52
5k430	331.67	0.0085	1/118	5k500	349.03	0.0179	1/56
"	337.54	-	-	6k000	358.56	0.0191	1/52
(Cimela Dam)				6k500	366.79	0.0165	1/61
5k500	338.93	0.0200	1/50	7k000	375.64	0.0177	1/56
6k000	340.16	0.0025	1/407	7k071	376.99	0.0190	1/53
6k500	343.54	0.0068	1/148	(S.CIKUNTEN II)			
7k000	348.50	0.0099	1/101	7k500	385.37	0.0195	1/51
7k500	351.52	0.0060	1/166	8k000	393.30	0.0159	1/63
8k000	358.20	0.0134	1/75	8k500	402.96	0.0193	1/52
8k500	363.98	0.0116	1/87	8k766	405.21	-	-
8k670	364.91	-	1/183	(Cikunir Bridge)			
(Ciloseh Bridge)				9k000	409.77	0.0136	1/73
9k000	369.23	0.0105	1/76	9k500	416.16	0.0128	1/78
9k500	374.37	0.0103	1/97	10k000	423.34	0.0144	1/70
10k000	380.05	0.0114	1/88	(Confluence of S.Cibanjara)			
10k500	385.86	0.0116	1/86	10k500	430.61	0.0145	1/69
11k000	392.00	0.0123	1/81	11k000	438.56	0.0159	1/63
11k500	397.11	0.0102	1/98	11k500	444.99	0.0129	1/78
12k000	401.92	0.0098	1/104	12k000	454.31	0.0186	1/54
12k500	408.19	0.0125	1/80	12k500	462.55	0.0165	1/61
13k000	412.73	0.0091	1/110	13k000	470.40	0.0157	1/64
13k500	418.02	0.0106	1/95	13k500	477.99	0.0152	1/66
14k000	424.16	0.0123	1/81	14k000	488.68	0.0214	1/47
14k500	429.93	0.0115	1/87	14k500	497.19	0.0170	1/59
15k000	436.04	0.0122	1/82	14k600	498.60	0.0141	1/71
15k500	443.02	0.0140	1/72	"	505.16	-	-
16k000	448.54	0.0110	1/91	(Overflow of CIPONYO I Luar)			
16k500	456.18	0.0153	1/65	15k030	512.01	0.0159	1/63
17k000	461.94	0.0115	1/87	15k411	521.50	0.0311	1/32
17k266	466.00	0.0153	1/66	"	523.86	-	-
"	473.06	-	-	(Overflow of CIPONYO I Dalam)			
(Overflow of NEGLA)				16k011	540.63	0.0280	1/36
				16k511	558.13	0.0350	1/29
				17k011	581.29	0.0463	1/22
				17k511	602.66	0.0427	1/23
				(Kp.KOKONCONG)			

Table-9 Heigt and Gradient of Riverbed

S.Cibanjalan				S.Cibeureum			
Distance (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed		Distance (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed	
0k000	424.26	-	-	(By Topographycal Plain)			
0k500	434.78	0.0210	1/48	0k000	343	-	-
1k000	440.93	0.0123	1/81	4k040	400	0.0141	1/71
1k500	446.05	0.0102	1/98	5k830	425	0.0140	1/72
2k000	453.16	0.0142	1/70	7k280	450	0.0172	1/58
2k500	457.93	0.0095	1/105	9k760	475	0.0101	1/99
3k000	464.74	0.0136	1/73	11k380	500	0.0154	1/65
3k500	472.15	0.0148	1/67				
4k000	480.63	0.0170	1/59				
4k500	491.30	0.0213	1/47				
4k700	497.58	0.0314	1/32				
"	501.14	-	-				
(Overflow of CIPONYO I Luar)							
5k001	503.95	0.0118	1/85				
5k501	515.52	0.0231	1/43				
5k778	523.30	0.0281	1/36				
"	529.32	-	-				
(Overflow of CIPONYO I Dalam)							
6k079	533.72	0.0146	1/68				
6k579	550.25	0.0331	1/30				
7k079	572.04	0.0436	1/23				
7k579	592.01	0.0399	1/25				
(Kp.SINAGAR)							

Table-10 Heigt and Gradient of Riverbed

S.Cimulu				S.Cianda			
Distance (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed		Distance (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed	
(By Topographycal Plain)				(By Topographycal Plain)			
0k000	340	-	-	0k000	350	-	-
5k220	400	0.0115	1/87	1k430	375	0.0175	1/57
7k110	425	0.0132	1/76	2k460	400	0.0243	1/41
8k100	450	0.0253	1/40	4k630	425	0.0115	1/87
10k470	475	0.0105	1/95	5k740	450	0.0225	1/44
11k520	500	0.0238	1/42	7k050	475	0.0191	1/52
13k620	550	0.0238	1/42	(Cross Point of CIKUNTEN I)			
				(By Lateral Prafile)			
				-0k200	470.49	-	-
				0k000	475.12	0.0232	1/43
				(Cross Point of CIKUNTEN I)			
				0k200	479.33	0.0211	1/48
				0k600	486.55	0.0181	1/55

Table-11 Heigt and Gradient of Riverbed

S.Cisaruni				S.CiKupang			
Distance (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed		Distance (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed	
(By Topographycal Plain)				(By Topographycal Plain)			
0k000	290	-	-	0k000	395	-	-
0k670	300	0.0149	1/67	0k260	400	0.0192	1/52
1k910	325	0.0202	1/50	1k790	425	0.0163	1/61
3k800	350	0.0132	1/76	3k120	450	0.0188	1/53
3k870	(Confluence of Cianda)			3k940	475	0.0305	1/33
4k980	(Confluence of Right Trib.)			4k630	500	0.0362	1/28
5k630	375	0.0137	1/73	(Cross Point of CIKUNTEN I)			
7k390	400	0.0142	1/70	(By Lateral Prafile)			
8k090	(Confluence of Ciawang)			-0k200	482.10	-	-
9k560	425	0.0115	1/87	0k000	484.99	0.0145	1/69
10k500	450	0.0266	1/38		488.99		
12k140	475	0.0152	1/66	(Cross Point of CIKUNTEN I)			
(Cross Point of CIKUNTEN I)				0k200	491.73	0.0137	1/73
(By Lateral Prafile)				0k400	496.25	0.0226	1/44
-0k200	472.18	-	-				
0k000	476.45	0.0211	1/47				
	479.06						
(Cross Point of CIKUNTEN I)							
0k200	482.22	0.0158	1/63				
0k400	489.78	0.0189	1/53				

Table-12 Heigt and Gradient of Riverbed

S.Cimerah							
Distance Mark (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed		Distance Mark (km)	Heigt of Riverbed (EL.m)	Gradient of Riverbed	
(By Topographycal Plain)							
0k000	395	-	-				
0k370	(Confluence of Right Trib.)						
0k540	(Confluence of Cikupang)						
0k770	400	0.0165	1/61				
2k620	425	0.0135	1/74				
4k360	(Confluence of Ciampo)						
4k640	450	0.0124	1/81				
5k410	475	0.0325	1/31				
6k590	500	0.0212	1/47				
6k740	505	0.0333	1/30				
(Cross Point of CIKUNTEN I)							
(By Lateral Prafile)							
-0k800	484.72	-	-				
-0k400	490.33	0.0140	1/71				
0k000	498.09	0.0194	1/52				
(Cross Point of CIKUNTEN I)							
0k400	491.73	0.0193	1/52				



**Appendix-2 Bank Height of River Side in Sand Pocket**



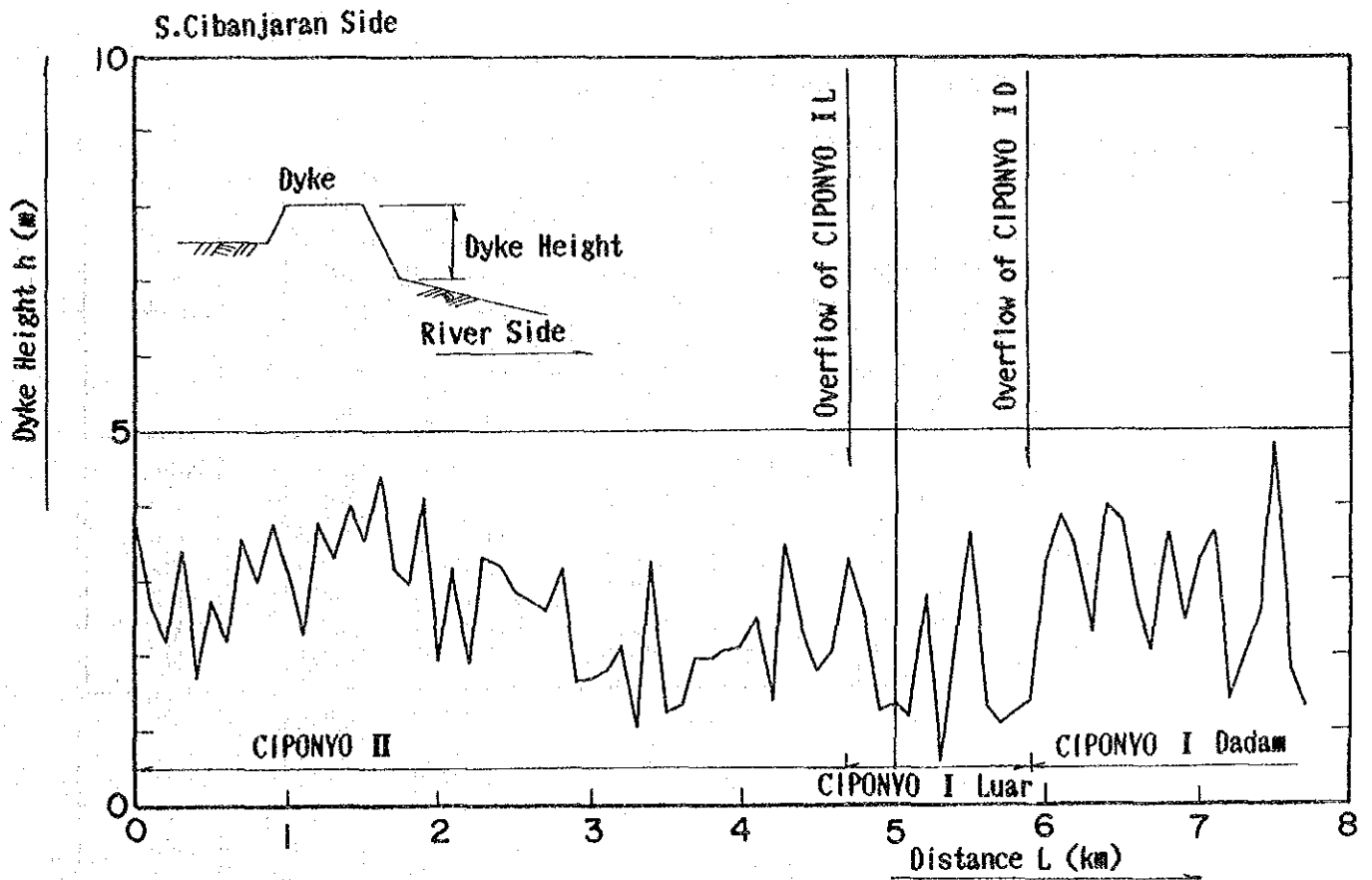
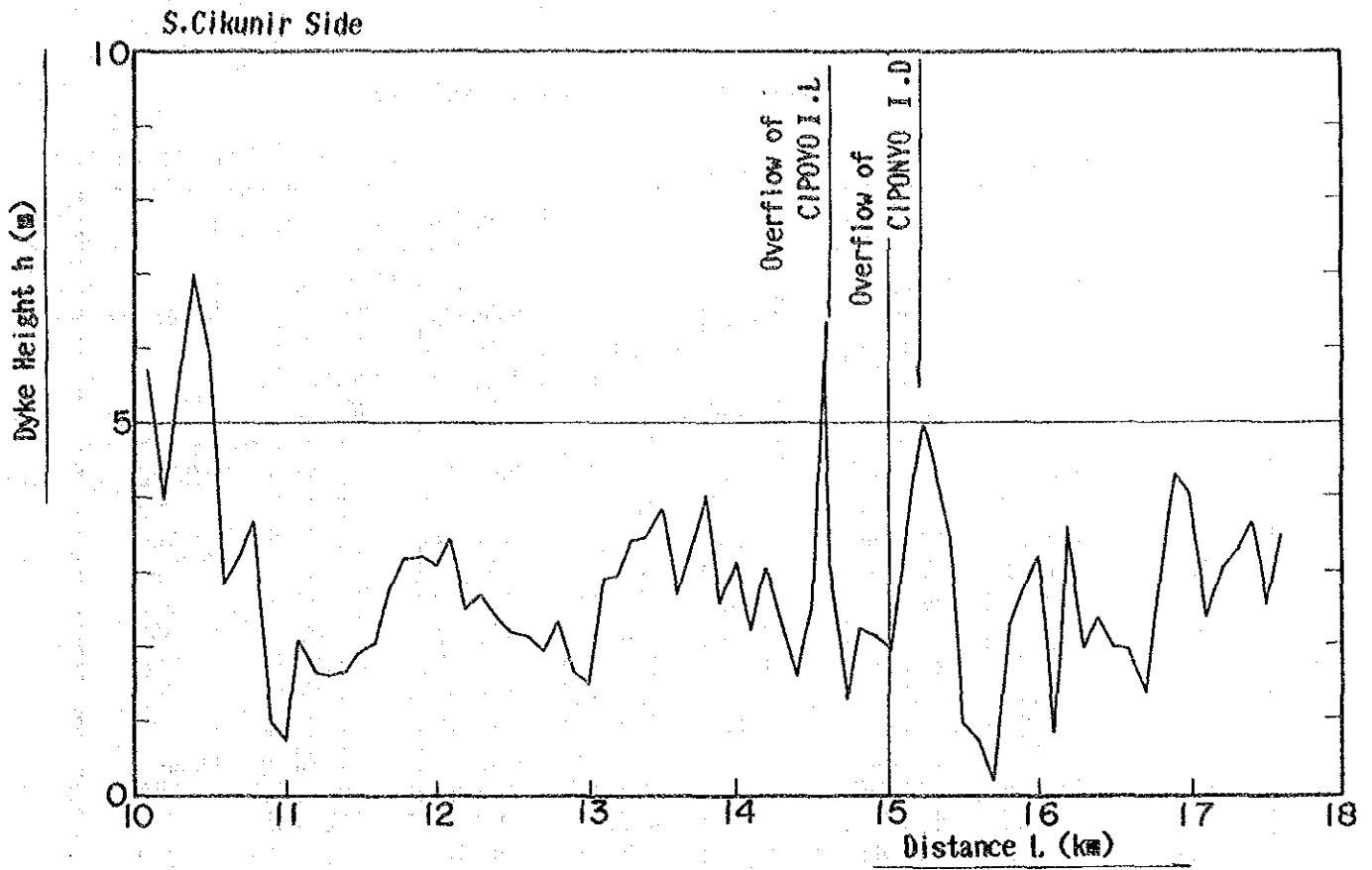


Fig- Dyke Height of Sand Pocket Ciponyo I & II

Table-1 Height of Dike in Sand Pocket

Name of Sand Pocket ; NEGLA

Distance Mark	Left Side			Right Side			Remarks
	Altitude of Top of Dike (EL.m) (1)	Altitude of Toe of Dyke (EL.m) (2)	Height of Dyke (m) (3)	Altitude of Top of Dike (EL.m) (4)	Altitude of Toe of Dyke (EL.m) (5)	Height of Dyke (m) (6)	
172	469.66	465.03	4.63	467.54	465.39	2.15	17k200
+65	476.36	473.15	3.21	476.59	473.18	3.41	265
173	477.14	473.90	3.24	477.48	473.67	3.81	300
174	477.41	475.04	2.37	477.72	476.63	1.09	400
175	478.84	476.17	2.67	478.67	475.09	3.58	500
176	479.81	478.50	1.31	479.22	476.47	2.75	600
177	479.61	478.30	1.31	479.42	476.69	2.73	700
178	478.75	476.10	2.65	481.54	480.29	1.25	800
179	480.87	478.21	2.66	482.93	481.42	1.51	900
180	481.46	478.45	3.01	483.94	482.16	1.78	18k000
0	482.56	480.46	2.10	482.31	481.81	0.50	260
1	484.45	482.08	2.37	487.40	486.23	1.17	360
2	484.75	482.83	1.92	488.32	486.65	1.67	460
3	486.62	481.88	4.74	491.53	489.42	2.11	560
4	492.44	489.00	3.44	490.60	488.47	2.13	660

Table-2 Height of Dike in Sand Pocket

Name of Sand Pocket ; CIMAMPANG

Distance Mark	Left Side			Right Side			Remarks
	Altitude of Top of Dike (EL.m) (1)	Altitude of Toe of Dyke (EL.m) (2)	Height of Dyke (m) (3)	Altitude of Top of Dike (EL.m) (4)	Altitude of Toe of Dyke (EL.m) (5)	Height of Dyke (m) (6)	
4+3.95	494.82	491.26	3.56	494.85	491.30	3.55	18K664
5	494.90	491.99	2.91	494.52	492.57	1.95	760
6	498.11	493.43	4.68	497.09	493.99	3.10	860
7	499.53	493.49	6.04	499.10	493.25	5.85	960
8	500.21	497.21	3.00	499.19	495.57	3.62	19K060
9	501.80	497.70	4.10	500.10	497.51	3.19	160
10	502.04	497.57	4.47	502.00	497.50	4.50	260



Table-3 Height of Dike in Sand Pocket

Name of Sand Pocket ; CIPONVO II (S.Cibangaran Side)

Distance Mark	Left Side			Right Side			Remarks
	Altitude of Top of Dike (EL.m) (1)	Altitude of Toe of Dike (EL.m) (2)	Height of Dike (m) (3)	Altitude of Top of Dike (EL.m) (4)	Altitude of Toe of Dike (EL.m) (5)	Height of Dike (m) (6)	
0	431.83	428.23	3.60	-	-	-	0k000
1	432.23	429.57	2.66	-	-	-	100
2	433.26	431.06	2.20	-	-	-	200
3	435.42	432.10	3.32	-	-	-	300
4	436.85	435.12	1.73	-	-	-	400
5	440.32	437.62	2.70	-	-	-	500
6	440.94	438.74	2.20	-	-	-	600
7	441.65	438.09	3.56	-	-	-	700
8	442.74	439.72	3.02	-	-	-	800
9	445.02	441.25	3.77	-	-	-	900
0	445.50	442.37	3.13	-	-	-	1k000
11	446.60	444.29	2.31	-	-	-	100
12	447.68	443.93	3.75	-	-	-	200
13	448.46	445.14	3.32	-	-	-	300
14	449.75	445.78	3.97	-	-	-	400
15	451.09	447.53	3.56	-	-	-	500
16	452.26	447.91	4.35	-	-	-	600
17	453.30	450.17	3.13	-	-	-	700
18	454.57	451.62	2.95	-	-	-	800
19	455.55	451.44	4.11	-	-	-	900
20	459.30	457.35	1.95	-	-	-	2k000
21	459.09	455.96	3.13	-	-	-	100
22	458.23	456.34	1.89	-	-	-	200
23	460.77	457.44	3.33	-	-	-	300
24	461.60	458.38	3.22	-	-	-	400
25	463.03	460.19	2.84	-	-	-	500
26	464.15	461.41	2.74	-	-	-	600
27	465.44	462.83	2.61	-	-	-	700
28	465.76	463.58	3.18	-	-	-	800
29	465.82	464.18	1.64	-	-	-	900
30	466.44	464.74	1.70	-	-	-	3k000
31	468.37	466.57	1.80	-	-	-	100
32	469.94	467.78	2.16	-	-	-	200
33	471.67	470.59	1.08	-	-	-	300
34	473.35	470.07	3.28	-	-	-	400
35	474.83	473.60	1.23	-	-	-	500
36	476.44	475.12	1.32	-	-	-	600
37	478.45	476.46	1.99	-	-	-	700
38	479.91	477.97	1.94	-	-	-	800
39	484.00	481.92	2.08	-	-	-	900
40	482.80	480.70	2.10	-	-	-	4k000
41	487.01	484.51	2.50	-	-	-	100
42	489.66	488.24	1.42	-	-	-	200
43	492.62	489.19	3.43	-	-	-	300
44	494.35	492.04	2.31	-	-	-	400
45	494.09	492.34	1.75	-	-	-	500
46	498.27	496.23	2.04	-	-	-	600
47	509.69	506.39	3.30	-	-	-	700
+1	-	-	-	-	-	-	701

Table-4 Height of Dyke in Sand Pocket

Name of Sand Pocket ; CIPONYO I (S.Cibanjara Side)

Distance Mark	Left Side			Right Side			Remarks
	Altitude of Top of Dyke (EL.m) (1)	Altitude of Toe of Dyke (EL.m) (2)	Height of Dyke (m) (3)	Altitude of Top of Dyke (EL.m) (4)	Altitude of Toe of Dyke (EL.m) (5)	Height of Dyke (m) (6)	
(CIPONYO I Luar)							
0 AM	504.75	501.48	3.27	504.78	501.48	3.30	4k701
1	504.84	502.26	2.58	506.28	503.45	2.83	801
2	505.32	504.07	1.25	508.11	504.65	3.46	901
3	506.43	505.09	1.34	510.86	507.52	3.34	5k001
4	509.11	507.96	1.15	-	-	-	101
5	512.00	509.21	2.79	-	-	-	201
6	514.03	513.45	0.58	-	-	-	301
7	517.87	515.45	2.42	-	-	-	401
8	523.59	519.98	3.61	-	-	-	501
9	521.53	520.22	1.31	-	-	-	601
10	524.78	523.69	1.09	-	-	-	701
0 AD							778
(CIPONYO I Dalam)							
0 AD	529.46	523.30	6.16	-	-	-	5k778
1	531.45	530.05	1.40	-	-	-	878
2	536.74	533.47	3.27	-	-	-	978
3	539.93	536.06	3.87	-	-	-	6k078
4	542.24	538.73	3.51	-	-	-	178
5	544.58	542.26	2.32	-	-	-	278
6	548.60	544.58	4.02	-	-	-	378
7	550.87	547.04	3.83	-	-	-	478
8	553.77	551.10	2.67	-	-	-	578
9	557.34	555.29	2.05	-	-	-	678
10	560.98	557.35	3.63	-	-	-	778
11	565.06	562.58	2.48	-	-	-	878
12	568.07	564.82	3.25	-	-	-	978
13	571.39	567.76	3.63	-	-	-	7k078
14	576.28	574.88	1.40	-	-	-	178
15	583.88	583.80	0.08	-	-	-	278
16	590.69	588.12	2.57	-	-	-	378
17	597.36	592.54	4.82	-	-	-	478
18	601.82	600.01	1.81	-	-	-	578
19	599.78	598.46	1.32	-	-	-	678

Table-5 Height of Dike in Sand Pocket

Name of Sand Pocket ; CIPONYO II (S.Cikunir Side)

Distance Mark	Left Side			Right Side			Remarks
	Altitude of Top of Dike (EL.m) (1)	Altitude of Toe of Dike (EL.m) (2)	Height of Dike (m) (3)	Altitude of Top of Dike (EL.m) (4)	Altitude of Toe of Dike (EL.m) (5)	Height of Dike (m) (5)	
101	430.02			431.54	425.81	5.73	10k100
102	431.56			434.11	430.11	4.00	200
103	432.97			433.28	427.86	5.42	300
104	435.01			437.10	430.16	7.00	400
105	436.06			437.28	431.35	5.93	500
106	435.87			435.31	432.45	2.86	600
107	-			437.77	435.56	3.21	700
108	-			439.17	435.53	3.64	800
109	-			440.70	439.71	0.99	900
110	-			439.95	439.23	0.72	11k000
111	-			443.10	441.06	2.04	100
112	-			444.57	442.91	1.66	200
113	-			445.73	444.16	1.57	300
114	-			447.92	446.27	1.65	400
115	-			449.60	447.68	1.92	500
116	-			451.12	449.06	2.06	600
117	-			452.26	449.51	2.75	700
118	-			453.66	450.47	3.19	800
119	-			455.99	452.79	3.20	900
120	-			457.21	454.14	3.07	12k000
121	-			459.01	455.56	3.45	100
122	-			460.39	457.92	2.47	200
123	-			462.00	459.32	2.68	300
124	-			463.46	461.09	2.37	400
125	-			465.30	463.11	2.19	500
126	-			467.13	464.97	2.16	600
127	-			468.71	466.78	1.93	700
128	-			470.63	468.33	2.30	800
129	-			472.21	470.59	1.62	900
130	-			473.61	471.80	1.47	13k000
131	-			475.65	472.74	2.91	100
132	-			477.33	474.38	2.95	200
133	-			478.90	475.49	3.41	300
134	-			480.75	477.29	3.46	400
135	-			482.27	478.42	3.85	500
136	-			484.19	481.48	2.71	600
137	-			488.03	484.66	3.37	700
138	-			490.03	486.02	4.01	800
139	-			491.04	488.49	2.55	900
140	-			492.90	489.79	3.11	14k000
141	-			494.12	491.90	2.22	100
142	-			496.52	493.51	3.01	200
143	-			497.90	495.52	2.38	300
144	-			499.95	498.38	1.57	400
145	-			500.40	497.98	2.42	500
146	-			505.20	498.85	6.35	600
+30	-			-	-	-	630

Table-6 Height of Dyke in Sand Pocket

Name of Sand Pocket ; CIPONYO I (S.Ciknir Side)

Distance Mark	Left Side			Right Side			Remarks
	Altitude of Top of Dyke (EL.m) (1)	Altitude of Toe of Dyke (EL.m) (2)	Height of Dyke (m) (3)	Altitude of Top of Dyke (EL.m) (4)	Altitude of Toe of Dyke (EL.m) (5)	Height of Dyke (m) (6)	
(CIPONYO I Luar)							
0	-			508.12	504.99	3.13	14k630
1	-			508.40	507.10	1.30	730
2	-			511.13	508.90	2.23	830
3	-			512.07	509.91	2.16	930
4	-			513.33	511.37	1.96	15k030
5	-			516.69	513.02	3.67	130
6	-			518.58	513.69	4.89	230
7	-			520.92	516.51	4.41	330
(CIPONYO I Dalam)							
0	-			526.16	522.75	3.41	15k411
1	-			527.97	527.01	0.96	511
2	-			530.45	529.72	0.73	611
3	-			533.92	533.70	0.22	711
4	-			539.27	536.97	2.30	811
5	-			542.74	540.01	2.73	911
6	-			545.52	542.36	3.16	16k011
7	-			547.53	546.69	0.84	111
8	-			552.40	548.83	3.57	211
9	-			556.01	554.04	1.97	311
10	-			559.86	557.49	2.37	411
11	-			564.13	562.15	1.98	511
2 B	-			567.74	565.79	1.95	611
3	-			571.77	570.43	1.34	711
4	-			577.67	574.77	2.90	811
5	-			581.79	577.52	4.27	911
6	-			587.41	583.37	4.04	17k011
7	-			591.10	588.71	2.39	111
8	-			594.73	591.72	3.01	211
1 C	-			599.20	595.98	3.22	311
2	-			603.55	599.95	3.60	411
3	-			608.34	605.81	2.53	511
4	-			612.61	609.20	3.41	611

**Appendix-3 Estimation of Economic Benefit**

**Annual Mean Damage Mitigation**



Table - 1 Project Area I (S. Ciloseh Area)

ANNUAL AVERAGE DAMAGE AREA-1 (WITH) (10 YEAR)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/3		0.00			
	1/5	0.133	0.00	0.00	0.0	0.0
	1/10	0.100	1823.96	911.98	91.2	91.2
	1/25	0.060	3586.73	2705.35	162.3	253.5
	1/50	0.020	7193.94	5390.34	107.8	361.3

ANNUAL AVERAGE DAMAGE AREA-1 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0.00			
	1/2	0.500	0.00	0.00	0.0	0.0
	1/3	0.167	0.00	0.00	0.0	0.0
	1/5	0.133	1619.68	809.84	108.0	108.0
	1/10	0.100	2680.47	2150.08	215.0	323.0
	1/25	0.060	5541.30	4110.89	246.7	569.6
	1/50	0.020	8528.23	7034.77	140.7	710.3

AMOUNT OF DAMAGE REDUCTION - 349.01 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE INDIRECT DAMAGE AREA-1 (WITH) (10 YEAR)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/3		0.00			
	1/5	0.133	0.00	0.00	0.00	0.00
	1/10	0.100	236.62	118.31	11.83	11.83
	1/25	0.060	278.61	257.62	15.46	27.29
	1/50	0.020	312.37	295.49	5.91	33.20

ANNUAL AVERAGE INDIRECT DAMAGE AREA-1 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	0.00	0.00	0.00	0.00
	1/3	0.167	0.00	0.00	0.00	0.00
	1/5	0.133	217.86	108.93	14.52	14.52
	1/10	0.100	247.42	232.64	23.26	37.79
	1/25	0.060	288.91	268.17	16.09	53.88
	1/50	0.020	321.62	305.27	6.11	59.98

AMOUNT OF DAMAGE REDUCTION - 26.79 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

Table - 2 Project Area II (S. Cikunir Area)

ANNUAL AVERAGE DAMAGES AREA-2 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABILITY	AVERAGE PROBABILITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	43.79	21.90	8.57	8.57
	1/10	0.100	336.53	199.16	19.02	25.58
	1/25	0.060	1996.66	1186.60	70.00	85.58
	1/50	0.020	2524.00	2260.33	45.21	140.79

ANNUAL AVERAGE DAMAGES AREA-2 (WITHOUT) (10 YEAR)

SEDIMENT OUT-FLOW VOLUME	PROBABILITY	AVERAGE PROBABILITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	5888.24	2827.02	1419.81	1419.81
	1/3	0.167	5877.35	5768.30	961.85	2374.86
	1/5	0.133	6844.00	6360.68	849.09	3222.95
	1/10	0.100	7864.25	7354.13	735.41	3958.36
	1/25	0.060	9913.64	8588.95	615.34	4473.70
	1/50	0.020	10501.72	9907.68	198.15	4671.85

AMOUNT OF DAMAGE REDUCTION = 4691.07 (Rp. 1,000,000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE INDIRECT DAMAGES AREA-2 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABILITY	AVERAGE PROBABILITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/3	0.167	11.40	5.70	0.95	0.95
	1/5	0.300	12.44	11.92	3.58	4.53
	1/10	0.100	89.68	51.06	5.11	9.83
	1/25	0.060	316.81	203.25	12.19	21.83
	1/50	0.020	344.74	330.78	6.62	27.49

ANNUAL AVERAGE INDIRECT DAMAGES AREA-2 (WITHOUT) (10 YEAR)

SEDIMENT OUT-FLOW VOLUME	PROBABILITY	AVERAGE PROBABILITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	433.93	218.07	108.48	108.48
	1/3	0.167	449.79	441.36	73.56	182.04
	1/5	0.133	490.26	489.63	82.60	244.65
	1/10	0.100	524.17	507.22	50.72	295.37
	1/25	0.060	569.19	548.68	32.80	328.17
	1/50	0.020	605.88	507.44	11.75	339.92

AMOUNT OF DAMAGE REDUCTION = 312.42 (Rp. 1,000,000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE IRRIGATION DAMAGES AREA-2 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABILITY	AVERAGE PROBABILITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	0.00	0.00	0.00	0.00
	1/25	0.060	0.00	0.00	0.00	0.00
	1/50	0.020	0.00	0.00	0.00	0.00

ANNUAL AVERAGE IRRIGATION DAMAGES AREA-2 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABILITY	AVERAGE PROBABILITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	50.00	25.45	12.73	12.73
	1/3	0.167	64.70	57.00	9.63	22.36
	1/5	0.133	120.20	92.45	12.33	34.69
	1/10	0.100	185.90	153.05	15.31	49.99
	1/25	0.060	312.50	249.20	14.95	64.94
	1/50	0.020	458.00	385.70	7.71	72.66

AMOUNT OF DAMAGE REDUCTION = 72.66 (Rp. 1,000,000.)  
(ANNUAL AVERAGE)



Table - 3 Project Area III (S. Cisaruni Area)

ANNUAL AVERAGE DIRECT DAMAGE AREA-3 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	104.49	52.25	5.22	5.22
	1/25	0.060	112.34	108.42	6.50	11.73
	1/50	0.020	145.07	128.71	2.57	14.30

ANNUAL AVERAGE DIRECT DAMAGE AREA-3 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	0.00	0.00	0.00	0.00
	1/3	0.167	0.00	0.00	0.00	0.00
	1/5	0.133	96.64	48.32	6.44	6.44
	1/10	0.100	111.25	103.95	10.39	16.84
	1/25	0.060	156.42	133.84	8.03	24.87
	1/50	0.020	211.62	184.02	3.68	28.55

AMOUNT OF DAMAGE REDUCTION - 14.24 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE INDIRECT DAMAGE AREA-3 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	24.66	12.33	1.23	1.23
	1/25	0.060	27.23	25.95	1.56	2.79
	1/50	0.020	29.29	28.26	0.57	3.36

ANNUAL AVERAGE INDIRECT DAMAGE AREA-3 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	0.00	0.00	0.00	0.00
	1/3	0.167	0.00	0.00	0.00	0.00
	1/5	0.133	22.35	11.18	1.49	1.49
	1/10	0.100	24.66	23.51	2.35	3.84
	1/25	0.060	27.74	26.20	1.57	5.41
	1/50	0.020	30.83	29.29	0.59	6.00

AMOUNT OF DAMAGE REDUCTION - 2.64 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE IRRIGATION DAMAGE AREA-3 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	0.00	0.00	0.00	0.00
	1/25	0.060	0.00	0.00	0.00	0.00
	1/50	0.020	0.00	0.00	0.00	0.00

ANNUAL AVERAGE IRRIGATION DAMAGE AREA-3 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	47.80	23.90	11.95	11.95
	1/3	0.167	60.70	54.26	9.04	20.99
	1/5	0.133	112.90	86.80	11.57	32.57
	1/10	0.100	174.50	143.70	14.37	46.94
	1/25	0.060	293.30	233.90	14.03	60.97
	1/50	0.020	430.80	362.05	7.24	68.21

AMOUNT OF DAMAGE REDUCTION - 68.21 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

Table - 4 Project Area IV (S. Cikupang Area)

ANNUAL AVERAGE DIRECT DAMAGE AREA-4 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	0.00	0.00	0.00	0.00
	1/25	0.060	117.30	58.65	3.52	3.52
	1/50	0.020	127.70	122.50	2.45	5.97

ANNUAL AVERAGE DIRECT DAMAGE AREA-4 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	0.00	0.00	0.00	0.00
	1/3	0.167	0.00	0.00	0.00	0.00
	1/5	0.133	96.09	48.05	6.41	6.41
	1/10	0.100	106.48	101.29	10.13	16.53
	1/25	0.060	127.70	117.09	7.03	23.56
	1/50	0.020	168.85	148.28	2.97	26.53

AMOUNT OF DAMAGE REDUCTION - 20.56 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE INDIRECT DAMAGE AREA-4 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	0.00	0.00	0.00	0.00
	1/25	0.060	17.37	8.69	0.52	0.52
	1/50	0.020	19.01	18.19	0.36	0.88

ANNUAL AVERAGE INDIRECT DAMAGE AREA-4 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	0.00	0.00	0.00	0.00
	1/3	0.167	0.00	0.00	0.00	0.00
	1/5	0.133	14.32	7.16	0.95	0.95
	1/10	0.100	15.72	15.02	1.50	2.46
	1/25	0.060	17.84	16.78	1.01	3.46
	1/50	0.020	19.48	18.66	0.37	3.84

AMOUNT OF DAMAGE REDUCTION - 2.95 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE IRRIGATION DAMAGE AREA-4 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	0.00	0.00	0.00	0.00
	1/25	0.060	0.00	0.00	0.00	0.00
	1/50	0.020	0.00	0.00	0.00	0.00

ANNUAL AVERAGE IRRIGATION DAMAGE AREA-4 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	95.50	47.75	23.88	23.88
	1/3	0.167	121.40	108.45	18.08	41.95
	1/5	0.133	225.50	173.45	23.18	65.08
	1/10	0.100	348.60	287.05	28.71	93.78
	1/25	0.060	588.10	467.35	28.04	121.82
	1/50	0.020	860.60	723.35	14.47	136.29

AMOUNT OF DAMAGE REDUCTION - 136.29 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

Table - 5 Project Area V (S. Cimerah Area)

ANNUAL AVERAGE DIRECT DAMAGE AREA-5 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/3		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	0.00	0.00	0.00	0.00
	1/25	0.060	102.74	51.37	3.08	3.08
	1/50	0.020	118.30	109.62	2.19	5.27

ANNUAL AVERAGE DIRECT DAMAGE AREA-5 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	0.00	0.00	0.00	0.00
	1/3	0.167	0.00	0.00	0.00	0.00
	1/5	0.133	88.76	44.38	5.92	5.92
	1/10	0.100	140.47	114.62	11.46	17.38
	1/25	0.060	384.10	262.29	15.74	33.12
	1/50	0.020	577.36	480.73	9.61	42.73

AMOUNT OF DAMAGE REDUCTION - 37.46 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE INDIRECT DAMAGE AREA-5 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	0.00	0.00	0.00	0.00
	1/25	0.060	19.46	9.73	0.58	0.58
	1/50	0.020	21.50	20.48	0.41	0.99

ANNUAL AVERAGE INDIRECT DAMAGE AREA-5 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	0.00	0.00	0.00	0.00
	1/3	0.167	0.00	0.00	0.00	0.00
	1/5	0.133	16.49	8.25	1.10	1.10
	1/10	0.100	18.53	17.51	1.75	2.85
	1/25	0.060	21.68	20.11	1.21	4.06
	1/50	0.020	24.83	23.26	0.47	4.52

AMOUNT OF DAMAGE REDUCTION - 3.53 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

ANNUAL AVERAGE IRRIGATION DAMAGE AREA-5 (WITH)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/2		0.00			
	1/5	0.300	0.00	0.00	0.00	0.00
	1/10	0.100	0.00	0.00	0.00	0.00
	1/25	0.060	0.00	0.00	0.00	0.00
	1/50	0.020	0.00	0.00	0.00	0.00

ANNUAL AVERAGE IRRIGATION DAMAGE AREA-5 (WITHOUT)

SEDIMENT OUT-FLOW VOLUME	PROBABI- LITY	AVERAGE PROBABI- LITY (1)	ESTIMATED DAMAGE (2)	AVERAGE ESTIMATED DAMAGE (3)	ANNUAL AVERAGE DAMAGE (4)	ACCUMULATED ANNUAL AVE. DAMAGE (5)
	1/1		0			
	1/2	0.500	115.80	57.90	28.95	28.95
	1/3	0.167	147.00	131.40	21.90	50.85
	1/5	0.133	273.20	210.10	28.01	78.86
	1/10	0.100	422.30	347.75	34.78	113.64
	1/25	0.060	710.10	566.20	38.97	147.61
	1/50	0.020	1042.80	876.45	17.53	165.14

AMOUNT OF DAMAGE REDUCTION - 166.14 (Rp.1.000.000.)  
(ANNUAL AVERAGE)

Table - 6 Project Area VI (Crater Lake Area)  
Case-1 and 2

AMOUNT OF DIRECT DAMAGE IN THE AREA-6 (CASE-1) (Rp. 1,000,000.)

L/SO	AREA-6 (CASE-1)						TOTAL
	ZONE-1	ZONE-2	ZONE-3	ZONE-4	ZONE-5	ZONE-6	
PADDY	28.04	6.81	1.99	22.77	208.97	12.82	278.80
FISH POND	4.19	0.10	0.07	0.90	39.95	2.44	41.66
ST	32.23	5.72	2.06	23.67	248.92	15.26	320.47
BUFFALO	13.31	3.39	0.67	4.05	68.31	4.70	86.64
COV	6.59	1.56	0.43	2.00	30.13	2.35	43.06
HORSE	0.88	2.89	0.17	0.58	0.02	0.25	5.19
GOAT	2.29	0.96	0.11	0.82	20.26	0.93	25.27
SHEEP	1.61	0.56	0.07	0.59	14.15	0.64	17.62
CHICKEN	72.10	45.73	6.07	40.65	382.41	39.41	586.41
ST	96.68	55.04	7.71	48.69	507.88	48.23	764.19
PERN-HOUSE	692.09	3033.20	74.47	376.11	1312.04	273.02	5781.54
SEMI-P.H.	83.40	785.00	11.69	86.90	108.04	12.29	1087.81
NONE-P.H.	18.09	69.08	1.65	9.70	101.04	11.21	212.86
OTHER HOUSE	0.00	1.01	0.05	0.40	4.18	0.24	6.67
MOSQUE	24.26	28.33	2.38	12.10	78.39	0.61	154.14
S. MOSQUE	33.04	52.21	1.58	24.14	242.18	30.71	383.79
CHURCH	0.00	1.56	0.00	0.00	0.00	0.00	1.56
HOSPITAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUSKAS MAS	2.85	1.95	0.15	1.03	4.33	1.60	11.92
POS YANDU	7.25	29.06	0.81	3.83	26.61	2.24	68.59
CLINIC	2.36	4.62	0.29	0.28	0.00	0.00	7.55
TK	2.09	0.96	0.22	0.14	0.00	0.30	10.31
SD	14.79	22.01	1.02	6.64	56.82	5.50	106.77
SLTP	1.52	8.49	0.16	0.14	0.00	0.12	10.43
SLTA	1.10	9.41	0.18	0.57	0.00	0.00	11.26
UNIU.	1.30	4.10	0.15	0.00	0.00	0.00	5.55
MDR IB	3.03	5.02	0.67	10.84	45.56	13.13	78.35
MDR SLTP	0.58	1.15	0.12	0.95	1.41	0.68	5.07
MDR SMTA	0.44	0.28	0.04	0.00	0.00	0.00	0.76
OTHER MDR	11.18	1.50	0.61	3.05	119.95	0.00	136.29
ST	901.15	4065.93	96.11	516.80	2101.38	359.64	8041.21
PUBLIC FACILITIES	208.11	825.34	21.18	117.83	578.03	84.68	1825.17
ST	208.11	825.34	21.18	117.83	578.03	84.68	1825.17
G. TOTAL	1236.00	4952.02	127.07	787.00	3420.20	508.85	10951.03

AMOUNT OF DIRECT DAMAGE MITIGATION = 219.02

INDIRECT DAMAGE OF AREA-6

	POPULATION	DAMAGE RATIO						TOTAL
		ZONE-1	ZONE-2	ZONE-3	ZONE-4	ZONE-5	ZONE-6	
CASE-1	112497	26.3	14.8	2.1	5.4	44.9	12.4	
CASE-2	112497	31.8	17.8	2.7	6.7	44.9	12.6	
AMOUNT DAMAGE								
CASE-1		1353.68	761.72	108.08	277.92	2310.89	638.20	5450.42
CASE-2		1638.67	910.12	138.96	344.83	2310.89	648.49	5995.97
Annual Average indirect damage Mitigation								
CASE-1		27.07	15.23	2.16	5.50	46.22	12.76	109.01
CASE-2		32.73	18.32	2.78	6.90	46.22	12.97	119.92

IRRIGATION DAMAGE IN AREA-6

	IRRI. AREA	D. RATIO	DAMAGE	Annual Average Damage
CASE-1	1043	1.00	458.92	0.18
CASE-2	1043	1.00	458.92	0.18

Table - 6 Project Area VI (Crater Lake Area)  
Case-1 and 2 (continue)

1/50	AREA-6 (CASE-2)		ZONE-3	ZONE-4	ZONE-5	ZONE-6	TOTAL
	ZONE-1	ZONE-2					
PADDY	61.88	12.13	6.31	34.55	228.43	20.24	362.52
FISH POND	9.06	0.22	0.19	1.37	37.47	3.85	52.17
ST	70.92	12.35	6.50	35.91	265.91	24.09	414.69
BUFFALO	28.75	7.32	2.32	6.15	66.57	7.42	118.54
COW	14.29	3.96	1.15	3.04	33.25	3.72	58.74
HORSE	1.48	6.25	0.44	0.97	0.68	0.40	10.13
GOAT	4.95	1.86	0.29	1.25	22.36	1.47	32.17
SHEEP	3.47	1.21	0.20	0.89	15.62	1.01	22.40
CHICKEN	155.74	98.02	16.18	61.67	422.07	62.22	816.80
ST	203.62	119.02	20.57	73.88	588.55	76.23	1058.77
PERN-HOUSE	1132.90	6141.02	148.95	631.75	1468.98	277.03	8692.65
SEMI-P.H.	136.40	1391.63	23.17	94.58	120.29	12.47	1718.44
HOME-P.H.	30.67	118.07	3.30	13.72	113.51	11.38	290.55
OTHER HOUSE	0.00	3.07	0.10	0.57	4.63	0.25	8.62
MOSQUE	39.69	48.02	4.77	17.19	87.29	9.74	205.69
S. MOSQUE	54.04	88.50	3.15	34.13	269.57	31.17	480.56
CHURCH	0.00	2.65	0.00	0.00	0.00	0.00	2.65
HOSPITAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUSKAS MAS	4.66	3.31	0.30	1.46	4.83	1.63	16.19
POS YANDU	11.88	47.56	1.61	5.13	29.63	2.27	98.06
CLINIC	3.86	7.83	0.57	0.40	0.00	0.00	12.66
TK	4.40	11.00	0.44	0.20	0.00	0.30	17.14
SD	24.18	37.30	2.03	9.30	63.27	5.59	141.75
SLTP	2.48	14.39	0.32	0.20	0.00	0.12	17.51
SLTA	1.80	15.95	0.36	0.81	0.00	0.00	18.91
UNIU.	2.13	6.94	0.30	0.00	0.00	0.00	9.37
MDR IB	4.95	8.51	1.33	15.46	50.73	13.33	94.32
MDR SLTP	0.94	1.95	0.24	1.34	1.56	0.87	6.92
MDR SMTA	0.72	0.48	0.07	0.00	0.00	0.00	1.27
OTHER MDR	18.29	2.54	1.21	4.32	133.58	0.00	159.92
ST	1473.85	6891.41	192.23	730.65	2339.78	365.13	11993.05
PUBLIC FACILITIES	358.68	1484.54	43.66	168.89	633.25	93.89	2693.30
ST	358.68	1484.54	43.66	168.89	633.25	93.89	2693.30
G. TOTAL	2104.87	8427.22	261.97	1008.53	3799.49	558.55	16158.81

AMOUNT OF DIRECT DAMAGE MITIGATION = 323.20

Table - 7 Cash-Flow of Whole Project (1) Benefit and IRR  
(Area 6 uses the value of case on overtopping of  
Crater Lake Water)

CASH-FLOW OF TOTAL PROJECT

(1) YEAR	BENEFIT						( Rp. 1,000,000.)	
	G. TOTAL	AREA-1	AREA-2	AREA-3	AREA-4	AREA-5	AREA-6	
1	0.00	--	0.00	0.00				
2	0.00	--	0.00	0.00				
3	20.56	--	0.00	20.56				
4	103.39	--	0.00	20.94	82.45			
5	106.30	--	0.00	21.34	84.96			
6	1992.29	--	998.18	21.75	95.66	18.93	367.77	
7	2920.57	--	1318.67	22.16	97.32	19.29	379.13	
8	3974.59	--	2772.95	57.82	89.00	76.24	378.57	
9	4967.75	--	3756.32	58.92	98.72	77.78	384.10	
10	5384.65	--	4763.71	60.84	92.48	79.18	389.24	
11	6733.30	--	5799.97	102.17	195.50	242.32	394.45	
12	6025.67	--	5880.12	103.27	197.57	244.89	399.73	
13	6919.12	--	5962.51	104.38	199.65	247.56	405.08	
14	7813.95	--	6046.05	105.50	201.76	250.13	410.50	
15	7118.10	--	6130.77	106.63	203.89	252.80	416.00	
16	7287.58	--	6216.68	107.78	206.05	255.49	421.57	
17	7986.40	--	6303.80	108.94	208.23	258.21	427.22	
18	7486.59	--	6392.15	110.11	210.43	260.96	432.94	
19	7588.16	--	6481.73	111.30	212.66	263.74	438.74	
20	7611.14	--	6572.57	112.50	214.90	266.55	444.62	
21	7715.55	--	6664.69	113.71	217.17	269.39	450.58	
22	7821.39	--	6758.10	114.94	219.47	272.27	456.62	
23	7928.70	--	6852.83	116.17	221.79	275.17	462.74	
24	8037.49	--	6948.88	117.43	224.14	278.11	468.94	
25	8147.79	--	7046.29	118.69	226.51	281.07	475.23	
26	8259.61	--	7145.06	119.97	228.91	284.07	481.60	
27	8372.98	--	7245.23	121.27	231.33	287.18	488.05	
28	8487.92	--	7346.80	122.59	233.78	290.17	494.60	
29	8604.45	--	7449.80	123.93	236.26	293.27	501.23	
30	8722.59	--	7554.24	125.24	238.76	296.40	507.95	
31	8842.36	--	7660.15	126.59	241.29	299.57	514.77	
32	8963.80	--	7767.58	127.96	243.85	302.77	521.67	
33	9086.91	--	7876.47	129.34	246.43	306.00	528.67	
34	9211.73	--	7986.91	130.74	249.04	309.27	535.76	
35	9338.27	--	8098.91	132.15	251.68	312.58	542.95	
36	9466.57	--	8212.47	133.58	254.35	315.92	550.24	
37	9596.64	--	8327.64	135.02	257.05	319.33	557.62	
38	9728.51	--	8444.42	136.48	259.78	322.72	565.11	
39	9862.21	--	8562.85	137.96	262.53	326.17	572.69	
40	9997.76	--	8682.94	139.45	265.32	329.66	580.38	
41	10135.19	--	8804.72	140.96	268.14	333.19	588.17	
42	10274.52	--	8928.21	142.49	270.98	336.76	596.07	
43	10415.78	--	9053.44	144.03	273.86	340.37	604.08	
44	10558.99	--	9180.43	145.59	276.77	344.01	612.19	
45	10704.19	--	9309.20	147.17	279.71	347.78	620.41	
46	10851.40	--	9439.78	148.77	282.68	351.42	628.74	
47	11000.65	--	9572.20	150.38	285.69	355.19	637.19	
48	11151.97	--	9706.49	152.01	288.73	359.00	645.75	
49	11305.39	--	9842.66	153.66	291.80	362.85	654.43	
50	11460.93	--	9980.74	155.32	294.90	366.74	663.22	

IRR = 0.0976

Area VI (Crater Lake Area) is the Case of Overtopping of Crater Lake Water

Table - 7 Cash-Flow of Whole Project (2) Cost  
(Area 6 uses the value of case on overtopping of  
Crater Lake Water)

(2) YEAR	COST						
	0. TOTAL	AREA-1	AREA-2	AREA-3	AREA-4	AREA-5	AREA-6
1	3450.00	523.30	2304.00	44.00	40.00	73.30	466.00
2	11250.00	0.00	9760.00	263.00	0.00	0.00	1220.10
3	10620.00	0.00	9117.00	0.00	275.20	0.00	1220.10
4	6441.00	262.40	4682.50	0.00	0.00	273.00	1220.10
5	8038.00	2045.20	3687.00	0.00	0.00	273.10	1220.00
6	3261.00	28.00	1670.40	536.00	0.00	979.30	45.00
7	2700.40	28.00	1197.00	536.00	0.00	979.30	45.00
8	2700.40	28.00	1197.00	536.00	0.00	979.30	45.00
9	3014.90	28.00	1197.00	537.00	226.20	979.40	45.00
10	3015.30	28.00	1190.00	636.00	226.20	979.70	45.00
11	240.00	28.00	133.40	10.50	10.50	11.10	45.00
12	240.00	28.00	133.40	10.50	10.50	11.10	45.00
13	240.00	28.00	133.40	10.50	10.50	11.10	45.00
14	240.00	28.00	133.40	10.50	10.50	11.10	45.00
15	240.00	28.00	133.40	10.50	10.50	11.10	45.00
16	240.00	28.00	133.40	10.50	10.50	11.10	45.00
17	240.00	28.00	133.40	10.50	10.50	11.10	45.00
18	240.00	28.00	133.40	10.50	10.50	11.10	45.00
19	240.00	28.00	133.40	10.50	10.50	11.10	45.00
20	240.00	28.00	133.40	10.50	10.50	11.10	45.00
21	240.00	28.00	133.40	10.50	10.50	11.10	45.00
22	240.00	28.00	133.40	10.50	10.50	11.10	45.00
23	240.00	28.00	133.40	10.50	10.50	11.10	45.00
24	240.00	28.00	133.40	10.50	10.50	11.10	45.00
25	240.00	28.00	133.40	10.50	10.50	11.10	45.00
26	240.00	28.00	133.40	10.50	10.50	11.10	45.00
27	240.00	28.00	133.40	10.50	10.50	11.10	45.00
28	240.00	28.00	133.40	10.50	10.50	11.10	45.00
29	240.00	28.00	133.40	10.50	10.50	11.10	45.00
30	240.00	28.00	133.40	10.50	10.50	11.10	45.00
31	240.00	28.00	133.40	10.50	10.50	11.10	45.00
32	240.00	28.00	133.40	10.50	10.50	11.10	45.00
33	240.00	28.00	133.40	10.50	10.50	11.10	45.00
34	240.00	28.00	133.40	10.50	10.50	11.10	45.00
35	240.00	28.00	133.40	10.50	10.50	11.10	45.00
36	240.00	28.00	133.40	10.50	10.50	11.10	45.00
37	240.00	28.00	133.40	10.50	10.50	11.10	45.00
38	240.00	28.00	133.40	10.50	10.50	11.10	45.00
39	240.00	28.00	133.40	10.50	10.50	11.10	45.00
40	240.00	28.00	133.40	10.50	10.50	11.10	45.00
41	240.00	28.00	133.40	10.50	10.50	11.10	45.00
42	240.00	28.00	133.40	10.50	10.50	11.10	45.00
43	240.00	28.00	133.40	10.50	10.50	11.10	45.00
44	240.00	28.00	133.40	10.50	10.50	11.10	45.00
45	240.00	28.00	133.40	10.50	10.50	11.10	45.00
46	240.00	28.00	133.40	10.50	10.50	11.10	45.00
47	240.00	28.00	133.40	10.50	10.50	11.10	45.00
48	240.00	28.00	133.40	10.50	10.50	11.10	45.00
49	240.00	28.00	133.40	10.50	10.50	11.10	45.00
50	240.00	28.00	133.40	10.50	10.50	11.10	45.00

Note) Case of Overtopping of Crater Lake Water on Area VI.







JICA