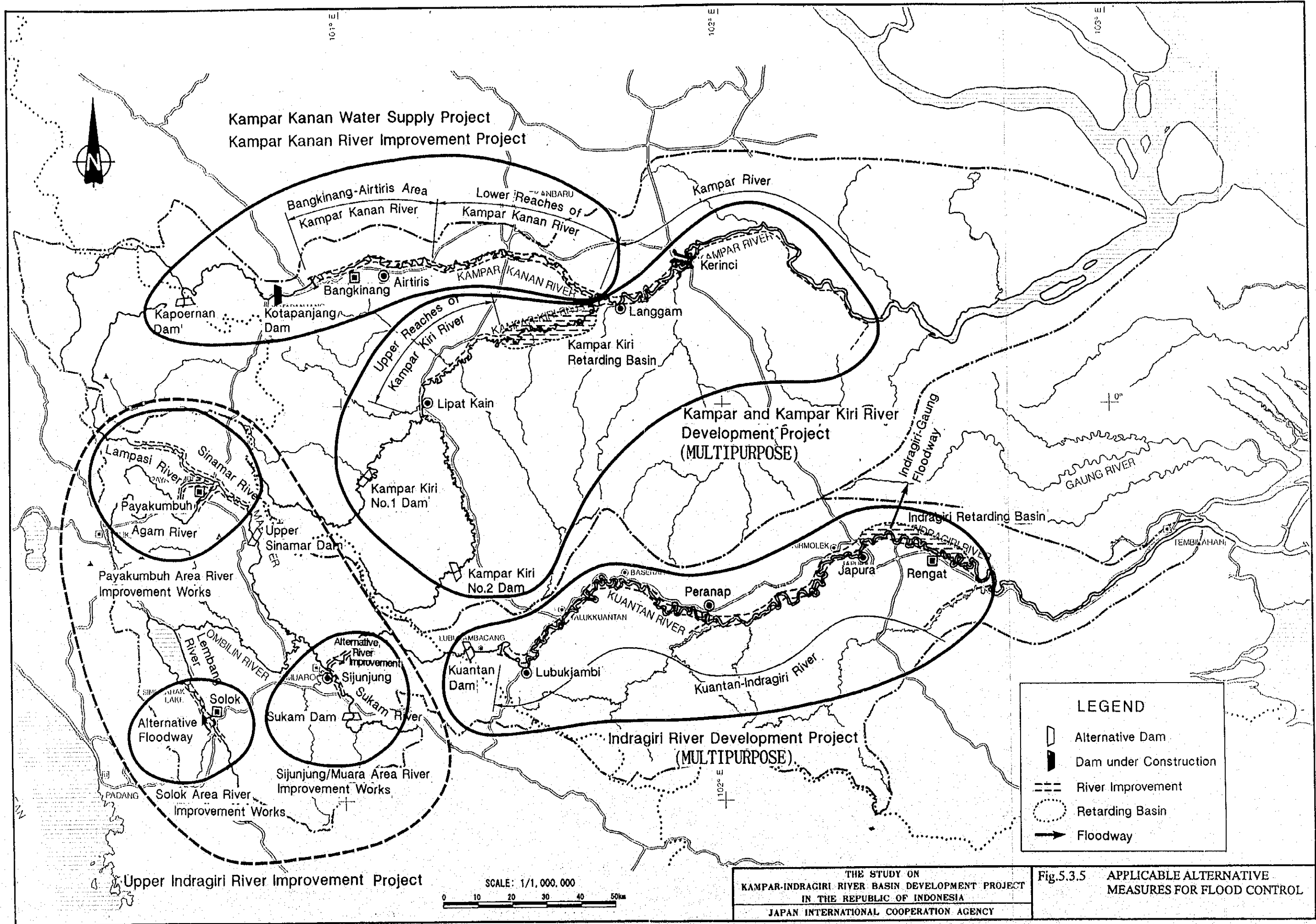


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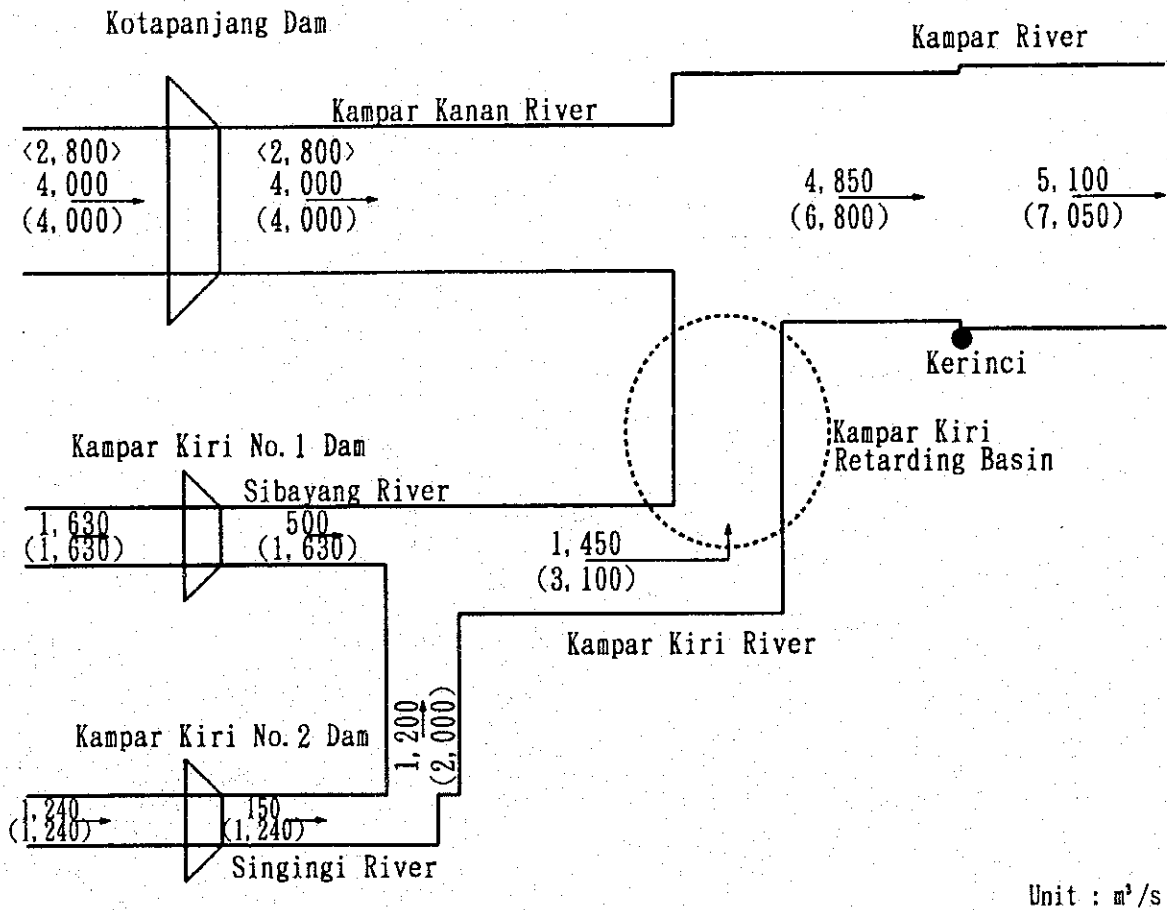
Fig.5.3.4 AREAS SUBJECT TO FLOOD CONTROL



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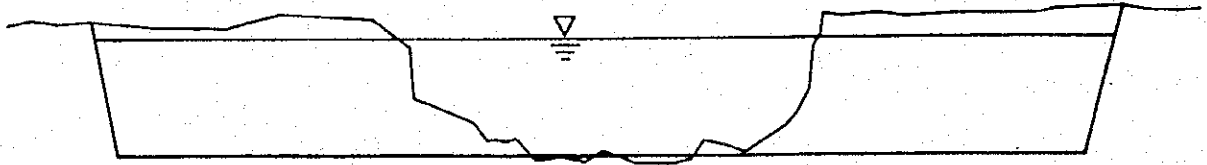
Fig.5.3.5 APPLICABLE ALTERNATIVE MEASURES FOR FLOOD CONTROL

K a m p a r R i v e r

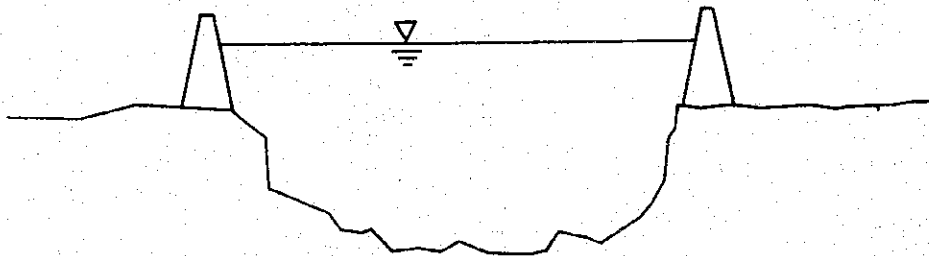


Note : Design Scale: -No Parentheses: 50-year Return Period
 -< >: 10-year Return Period
 Figures in Parentheses are standard design discharges.

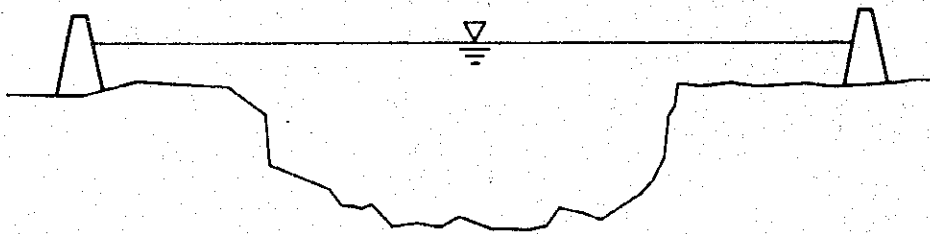
Case 1 Excavated Channel



Case 2 Narrow and High Embankment Channel



Case 3 Intermediate of Case 2 and Case 4

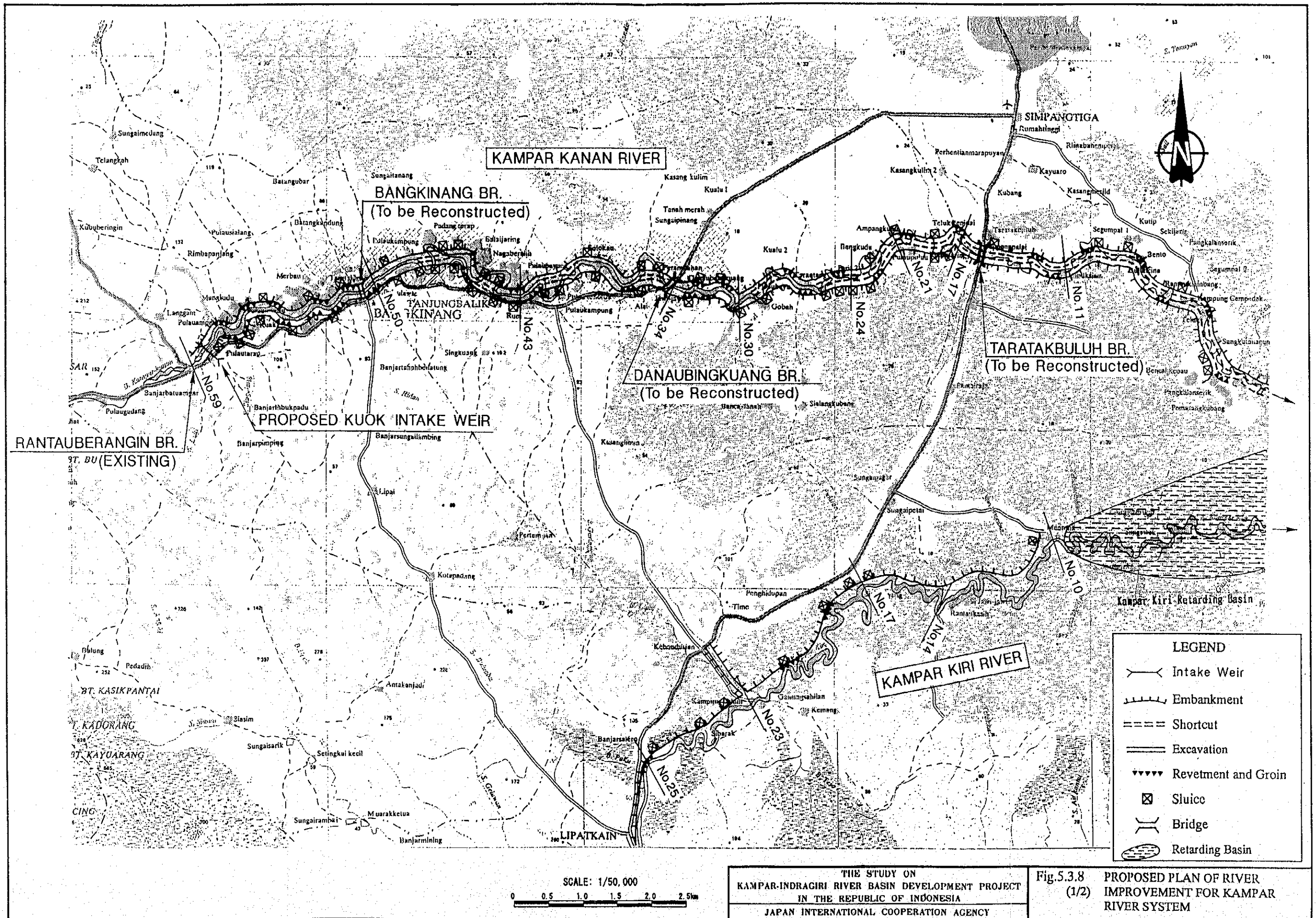


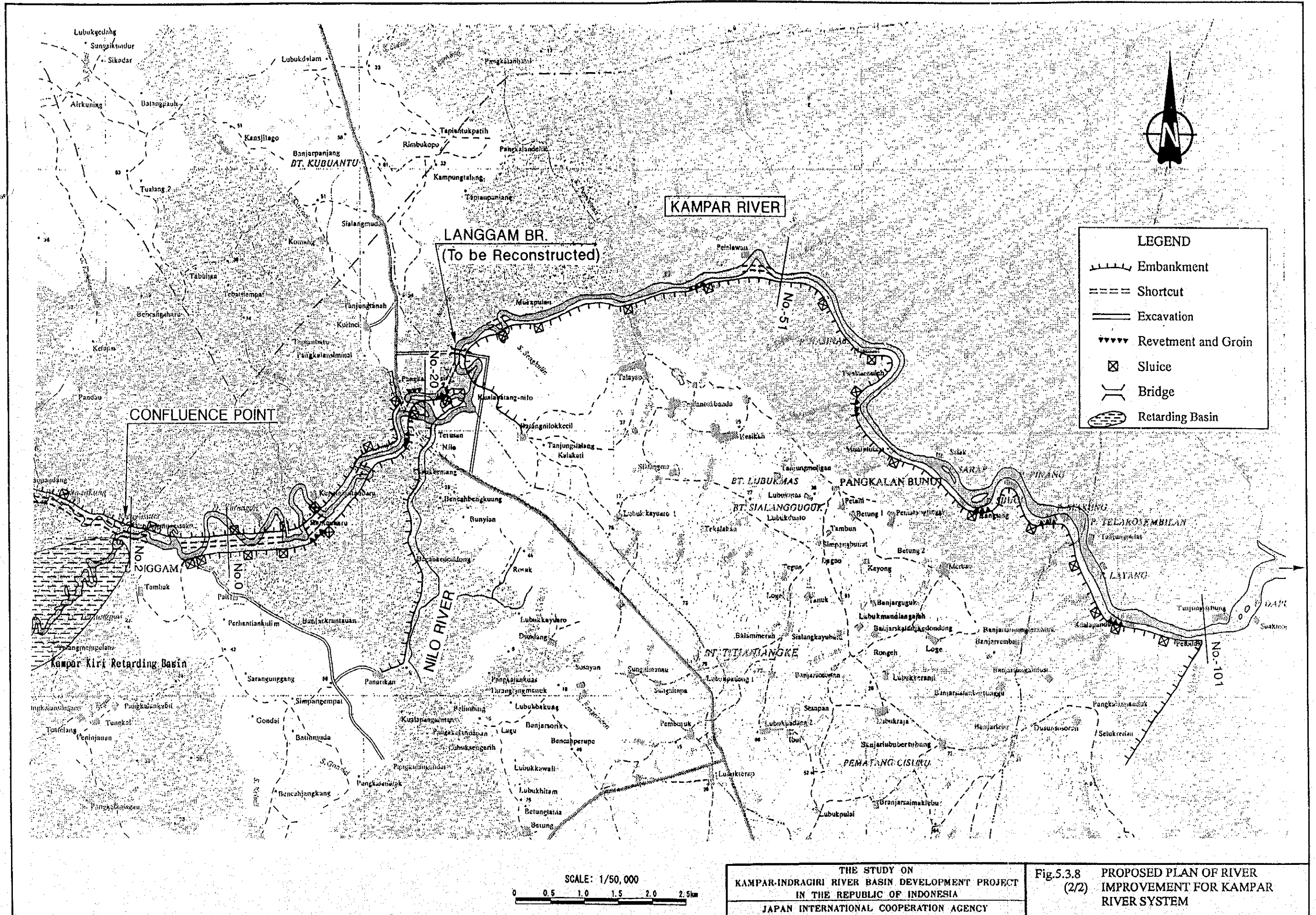
Case 4 Wide and Low Embankment Channel



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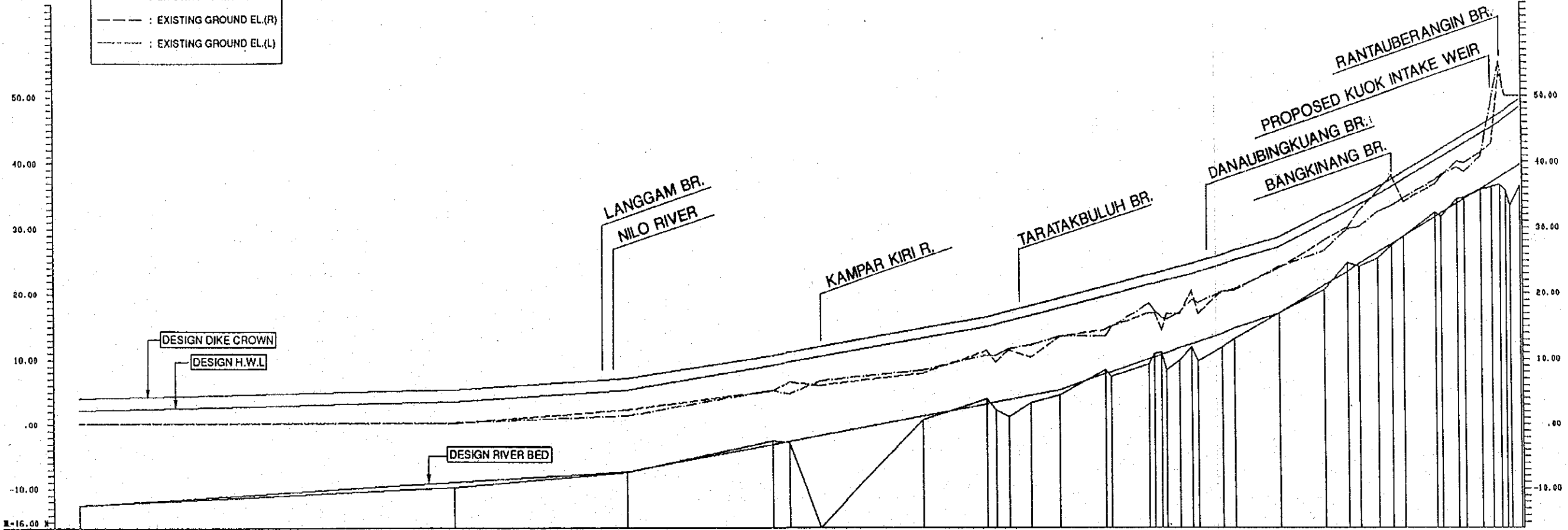
Fig.5.3.7 ALTERNATIVE CROSS SECTIONS
FOR KAMPAR KANAN RIVER
IMPROVEMENT PLAN





KAMPAR KANAN RIVER

LEGEND	
	: EXISTING RIVER BED
	: EXISTING GROUND EL.(R)
	: EXISTING GROUND EL.(L)



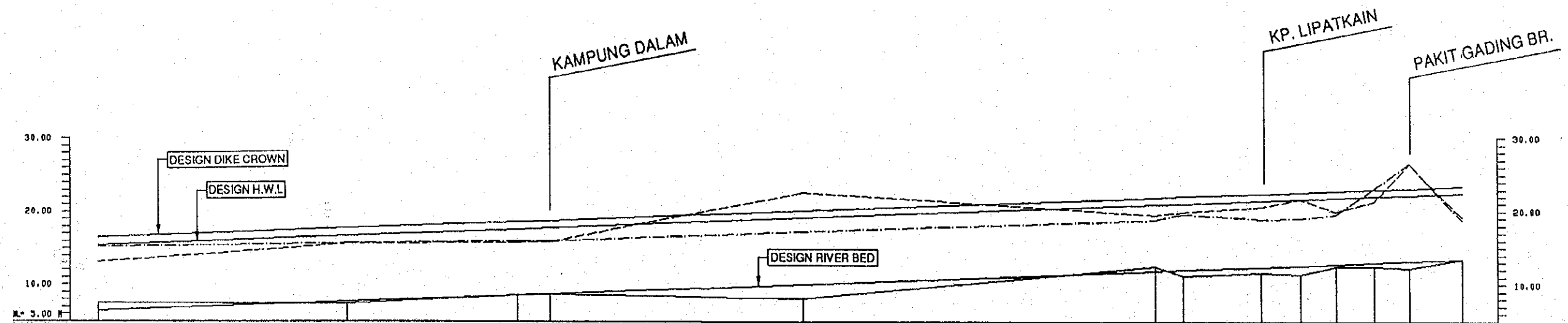
SECTION NO.	DISTANCE (KM)		EXISTING GROUND		DESIGN EL. (CM)		DESIGN PLAN	
	START	END	LEFT	RIGHT	DIKE CROWN	DESIGN H.W.L.	LONG DIKE	SHORT PLAN
-101	0.00	0.00	-12.58	-2.24	2.24	4.04		
-51	60.00	60.00	-9.75	-3.00	3.49	5.29		
-23	87.80	87.80	-7.33	3.30	7.33	6.70		
6	89.26	111.00	-8.57	5.80	9.17	10.54		
1	89.00	113.00	-8.30	4.60	8.30	11.01		
2	5.00	118.00	-15.96	6.60	5.90	11.84		
5	16.30	135.10	8.20	7.70	1.25	13.36		
11	16.20	145.30	9.00	10.50	11.50	14.76		
12	1.50	144.80	9.40	10.40	3.34	15.14		
13	2.00	149.00	1.11	11.30	3.71	15.64		
17	3.50	152.30	3.27	12.10	4.34	16.37		
28	4.50	156.80	4.40	13.40	5.10	17.44		
33	7.40	163.50	9.73	13.80	7.88	18.71		
37	6.10	171.50	10.00	17.30	10.20	21.50		
38	1.80	174.00	10.20	18.00	10.80	21.60		
39	2.80	176.20	9.80	17.10	11.63	22.99		
38	1.80	179.10	9.20	18.80	12.00	23.80		
36	3.00	183.10	11.07	20.30	13.05	24.38		
39	2.40	185.10	13.05	20.40	14.65	25.80		
43	6.80	192.20	16.36	24.00	23.80	27.05		
46	7.10	199.30	20.48	28.00	21.14	30.60		
48	3.70	203.00	24.58	30.00	23.31	32.45		
49	1.90	204.90	23.98	30.10	32.40	34.60		
50	3.00	207.90	25.28	32.40	35.20	36.10		
51	2.80	210.10	27.24	33.30	37.90	36.15		
52	2.00	212.10	28.64	34.30	39.67	37.30		
53	3.90	218.00	31.50	38.00	34.11	41.30		
55	2.60	220.60	34.29	40.00	39.67	42.16		
56	1.10	221.70	34.61	39.40	42.78	43.36		
57	2.50	224.30	35.65	41.40	43.84	44.27		
58	1.70	226.00	36.18	43.80	45.24	46.44		
59	1.40	227.40	36.37	45.00	47.00	47.34		
60	1.60	230.60	36.31	50.00	39.55	49.45		

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Fig.5.3.9 PROPOSED LONGITUDINAL PROFILE
(1/2) FOR KAMPAR RIVER SYSTEM

KAMPAR KIRI RIVER

LEGEND	
	: EXISTING RIVER BED
	: EXISTING GROUND EL.(R)
	: EXISTING GROUND EL.(L)

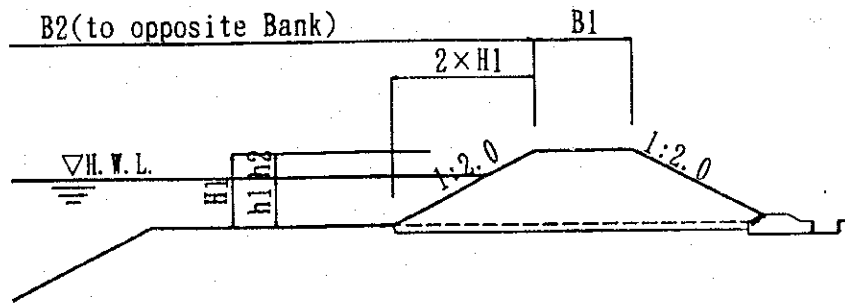


SECTION NO.	DISTANCE (M)		EXISTING EL. (M)		DESIGN EL. (M)		
	RELATIVE DISTANCE	ABSOLUTE DISTANCE	EXISTING CHANNEL BED	EXISTING GROUND	CHANNEL BED	DESIGN EL. (M)	
			LEFT	RIGHT		LONG PLAN HIGH WATER	
						DIKE CREST	
						SHORT PLAN HIGH WATER	
						DIKE CREST	
20	7.00	91.00	15.20	13.10	6.41	15.46	16.45
21	7.10	98.90	15.72	15.60	7.71	16.74	17.74
22	4.90	103.70	15.95	15.79	8.38	17.61	18.61
23	.90	104.60	15.97	15.86	8.74	17.77	18.77
24	7.20	111.80	17.25	22.60	19.05	19.08	20.88
25	10.00	121.80	18.80	13.50	11.87	28.90	21.90
26	.80	122.60	19.59	19.90	12.01	21.05	22.05
27	2.20	124.80	18.96	20.60	12.41	21.46	22.45
28	1.10	125.90	19.00	21.70	12.61	21.65	22.65
29	1.00	126.90	19.35	20.00	12.80	21.83	22.83
30	1.10	128.00	23.20	21.40	13.00	22.03	23.03
31	1.00	129.00	26.50	26.50	13.18	22.21	23.21
32	1.50	130.50	18.82	19.19	13.45	22.48	23.48

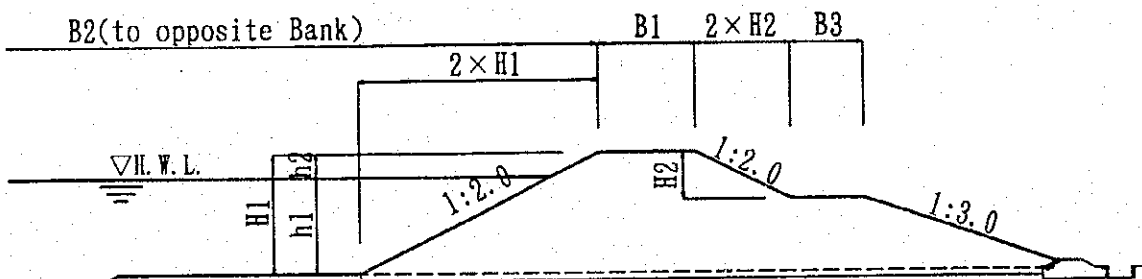
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Fig.5.3.9 PROPOSED LONGITUDINAL PROFILE
(2/2) FOR KAMPAR RIVER SYSTEM

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION



Note: $H1 < 6$ $H2 = 2m$
 $H1 < 8$ $H2 = 3m$
 $H1 > 8$ $H2 = 4m$

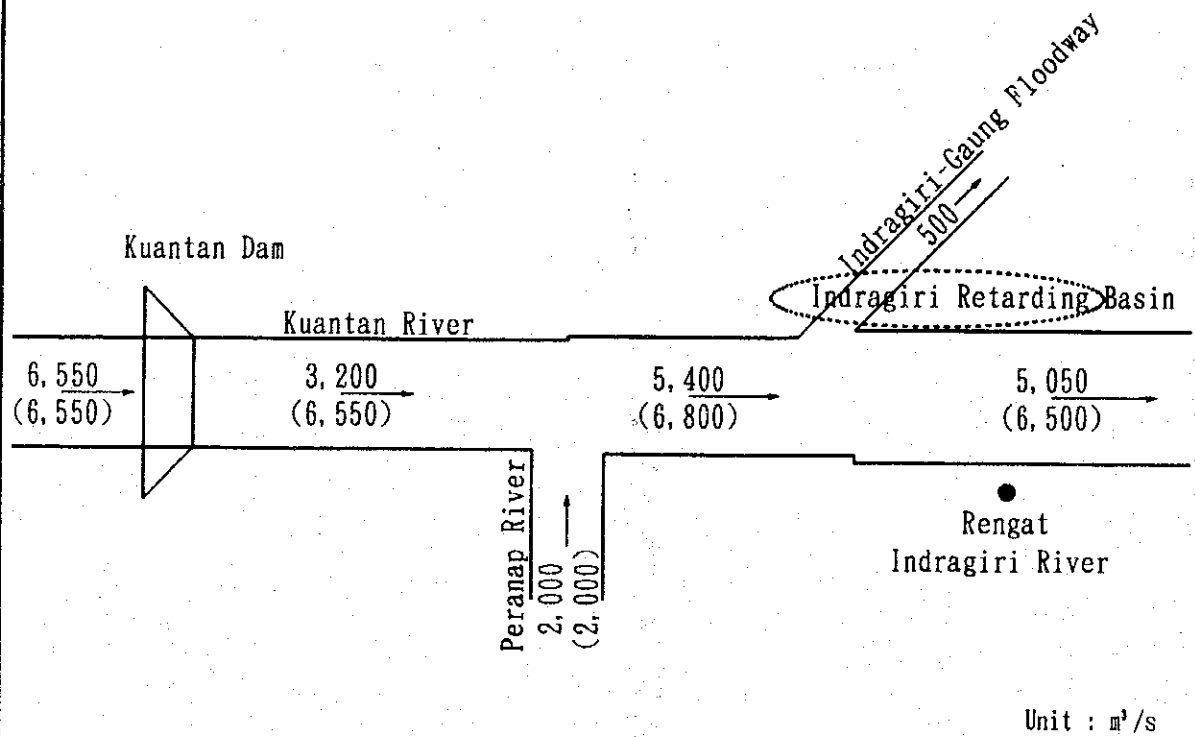
Unit: m

River	No.	Accm. Distance (km)	Type	B1	B2	B3	h2
Kampar Kanan	No. -101	0.0	B	6.0	—	3.0	1.8
	No. -23	87.8	B	5.0	600	3.0	1.5
	No. 0	111.0	B	5.0	600	3.0	1.5
	No. 2	118.8	B	5.0	400	3.0	1.5
Kampar	No. 17	152.3	B	5.0	300	3.0	1.5
	No. 46	198.7	A	5.0	300	—	1.2
	No. 61	224.9					
Kampar Kiri	No. 20	91.8	A	4.0	—	—	1.0
	No. 32	130.5					

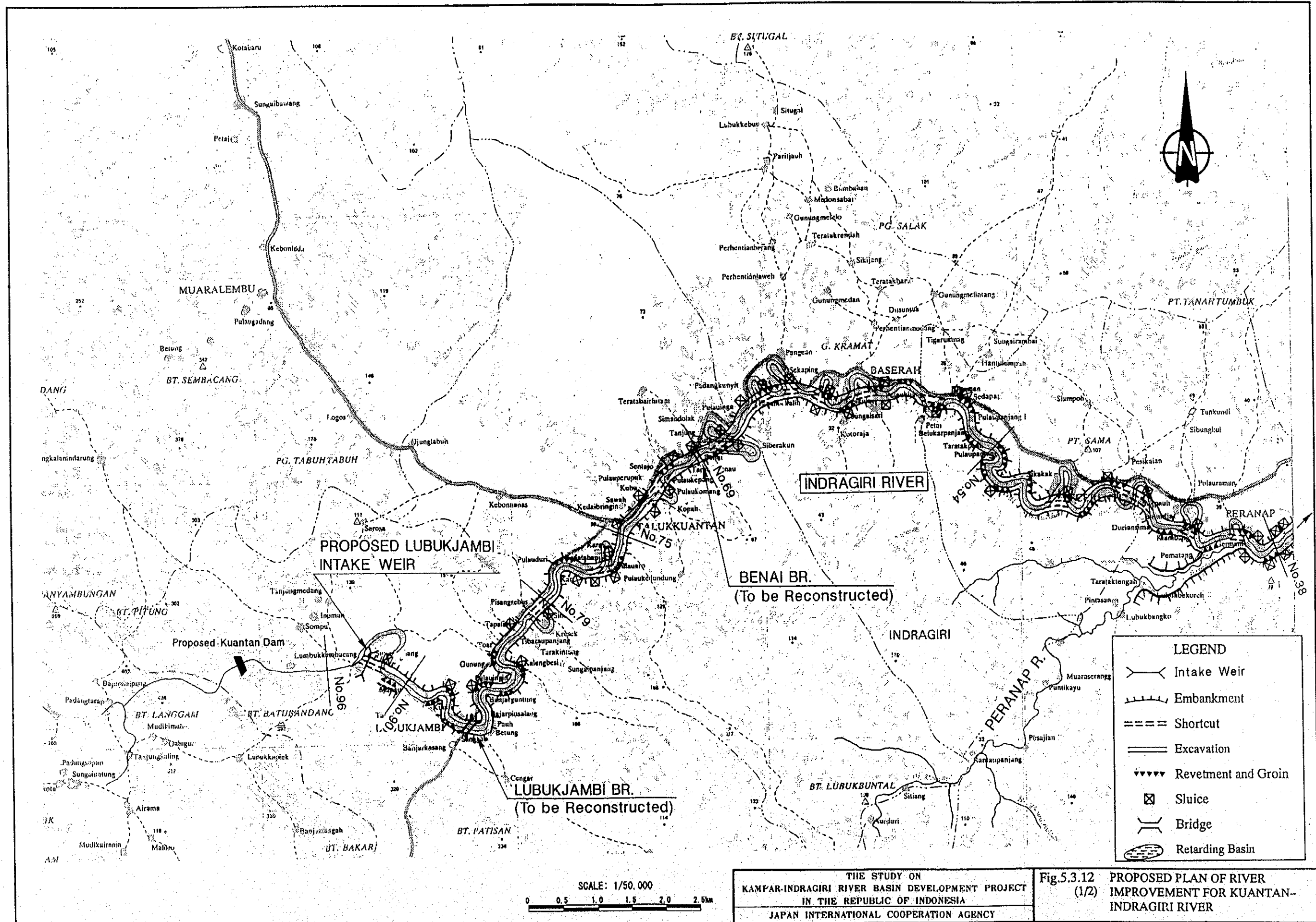
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Fig.5.3.10 PROPOSED CROSS SECTIONS FOR KAMPAR RIVER SYSTEM

Middle and Lower Reaches of Indragiri River

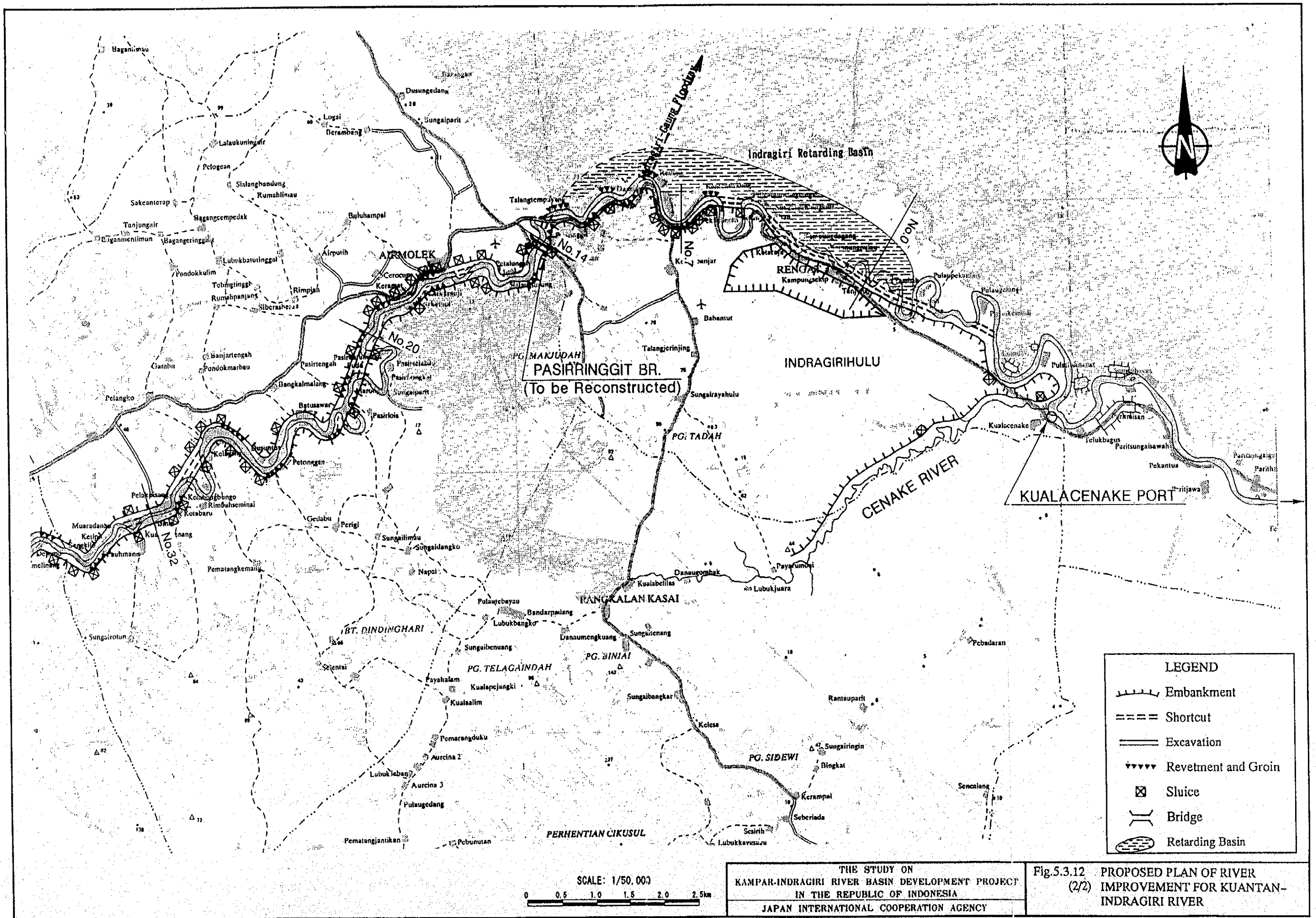


Note : Design Scale: 50-year Return Period
 Figures in Parentheses are standard design discharges.



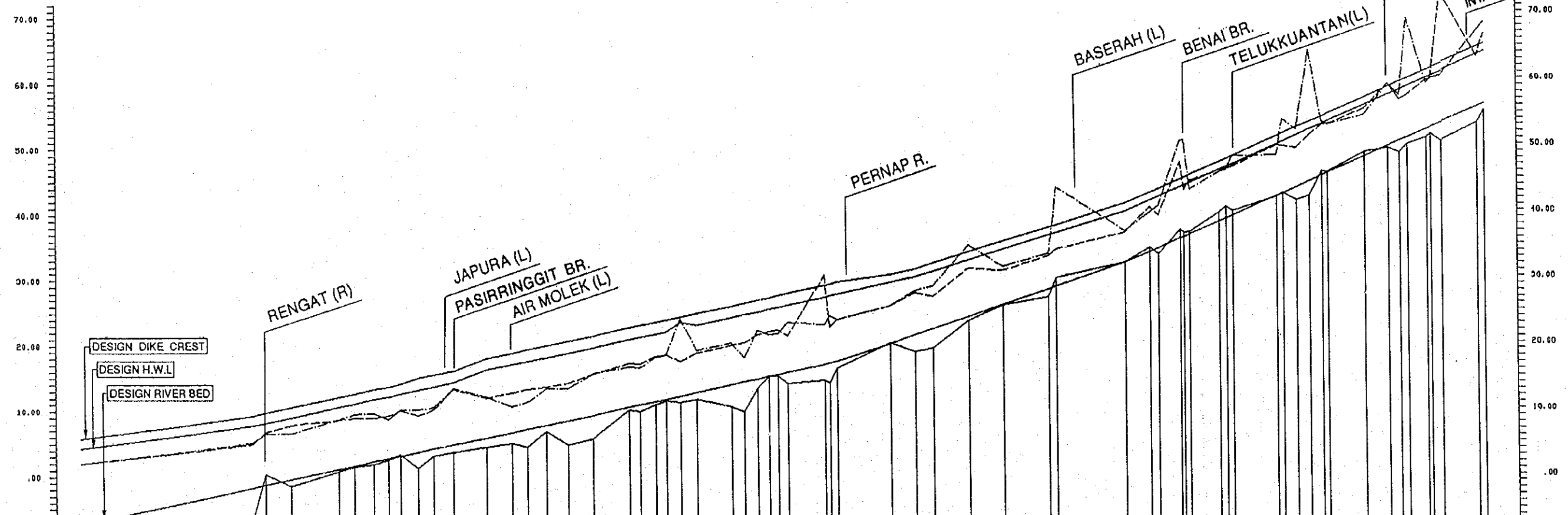
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Fig.5.3.12 PROPOSED PLAN OF RIVER IMPROVEMENT FOR KUANTAN-INDRAGIRI RIVER (1/2)



KUANTAN - INDRAGIRI RIVER

LEGEND	
	: EXISTING RIVER BED
	: EXISTING GROUND EL.(R)
	: EXISTING GROUND EL.(L)

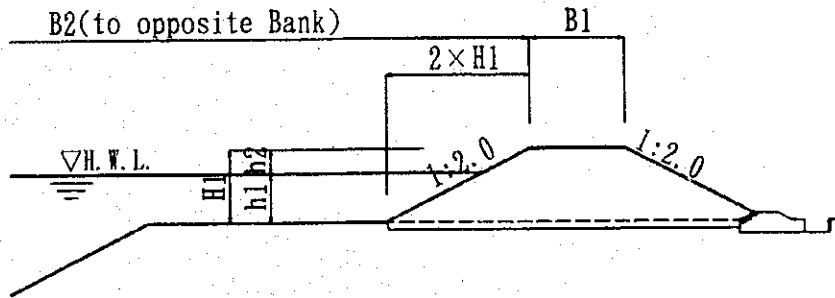


SECTION NO.	DISTANCE (M)		EXISTING EL. (M)		DESIGN EL. (M)	
	ACTUAL	LATIVE	RIGHT	LEFT	CHANNEL	LONG PLAN
	DISTANCE	DISTANCE	CHANNEL BED	RIGHT	CHANNEL BED	RIGHT
-1	0.00	0.00	-7.20	2.00	-7.22	4.32
0	28.00	28.00	-6.43	3.20	-1.62	7.82
1	2.10	30.10	-4.2	6.60	-1.28	9.24
2	4.60	34.70	-1.41	6.60	-1.44	10.54
6	7.60	42.30	0.81	8.70	1.12	12.06
7	2.50	44.80	1.47	9.50	1.62	12.56
8	3.10	47.90	1.79	9.60	2.24	13.18
9	2.20	49.50	2.49	8.70	2.68	12.12
10	2.00	51.50	3.24	10.10	3.88	12.52
11	2.90	54.40	1.27	10.18	3.64	13.10
12	2.50	56.90	3.04	10.50	4.16	13.60
14	3.00	59.90	3.64	13.30	4.76	14.20
15	3.40	63.30	4.43	12.10	5.84	16.15
17	4.00	67.30	4.54	10.60	6.64	16.52
18	2.60	71.90	4.47	11.38	7.16	17.47
19	3.00	74.90	6.78	13.30	7.76	18.67
20	3.30	78.20	4.74	13.30	8.46	18.77
22	4.00	82.20	5.65	15.60	9.26	19.57
24	3.90	86.10	9.99	16.50	10.44	20.75
25	1.70	87.80	9.78	16.40	10.76	21.69
26	2.50	90.30	10.78	18.00	11.28	21.59
27	1.80	92.10	11.34	18.40	11.44	21.75
28	2.20	94.30	11.18	24.00	12.80	23.59
29	2.70	97.00	11.62	19.10	12.62	24.75
31	3.70	100.70	10.58	20.80	13.76	25.87
33	2.10	102.80	9.64	17.50	14.38	24.49
34	2.10	104.90	13.20	22.18	14.68	24.91
35	2.00	111.10	15.04	21.40	15.90	25.31
36	1.90	113.00	15.10	21.60	16.10	25.38
37	1.60	114.60	15.96	23.30	17.28	25.98
38	5.30	120.90	14.87	22.80	16.88	27.17
40	1.20	122.10	16.20	23.60	17.80	27.51
43	9.40	130.50	19.06	20.70	19.91	29.19
47	4.80	134.50	19.61	20.00	21.28	29.96
48	3.80	137.50	19.20	28.70	22.17	30.87
53	5.70	143.20	23.41	34.90	24.81	32.56
54	5.50	148.70	25.67	31.50	25.78	34.17
56	7.40	155.90	26.94	33.50	26.18	34.86
57	1.30	157.20	29.82	43.50	28.52	36.27
60	11.00	168.20	32.04	36.90	32.87	39.90
64	3.20	172.10	34.48	39.70	33.78	41.53
65	1.40	173.50	30.28	40.80	34.28	42.11
68	3.40	177.90	33.70	39.50	35.30	43.80
73	4.80	183.40	39.77	45.90	38.44	46.23
74	1.10	184.50	39.58	46.30	38.58	46.31
76	7.10	191.60	42.12	48.40	42.23	50.70
79	2.20	193.80	41.55	52.30	43.57	51.40
80	2.10	197.90	42.18	64.30	44.43	52.88
81	7.00	204.90	45.20	53.00	45.90	53.11
83	5.80	208.70	48.82	54.50	48.11	55.94
86	3.80	212.50	49.34	59.20	49.78	57.53
87	1.80	214.30	48.64	57.50	50.45	58.88
88	1.20	215.50	49.89	69.00	50.50	58.78
89	3.70	219.20	51.57	58.70	53.24	61.92
93	1.70	219.00	50.40	60.40	53.24	61.07
94	5.80	224.80	53.14	67.00	55.40	64.69
	1.10	225.90	55.10	68.50	56.11	65.11

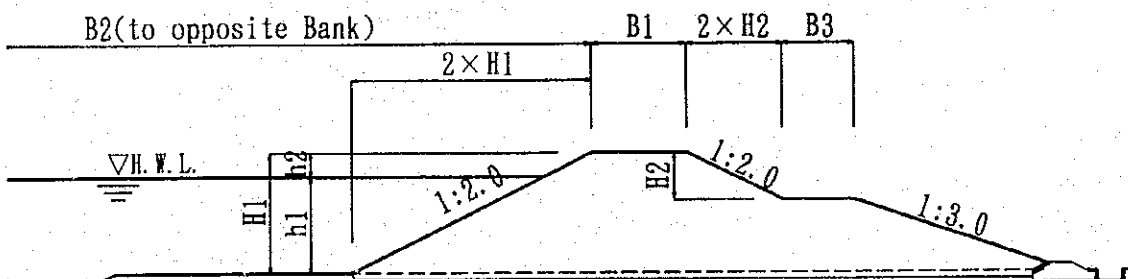
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Fig.5.3.13 PROPOSED LONGITUDINAL PROFILE FOR KUANTAN-INDRAGIRI RIVER

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION



Note: $H1 < 6$ $H2 = 2m$
 $H1 < 8$ $H2 = 3m$
 $H1 > 8$ $H2 = 4m$

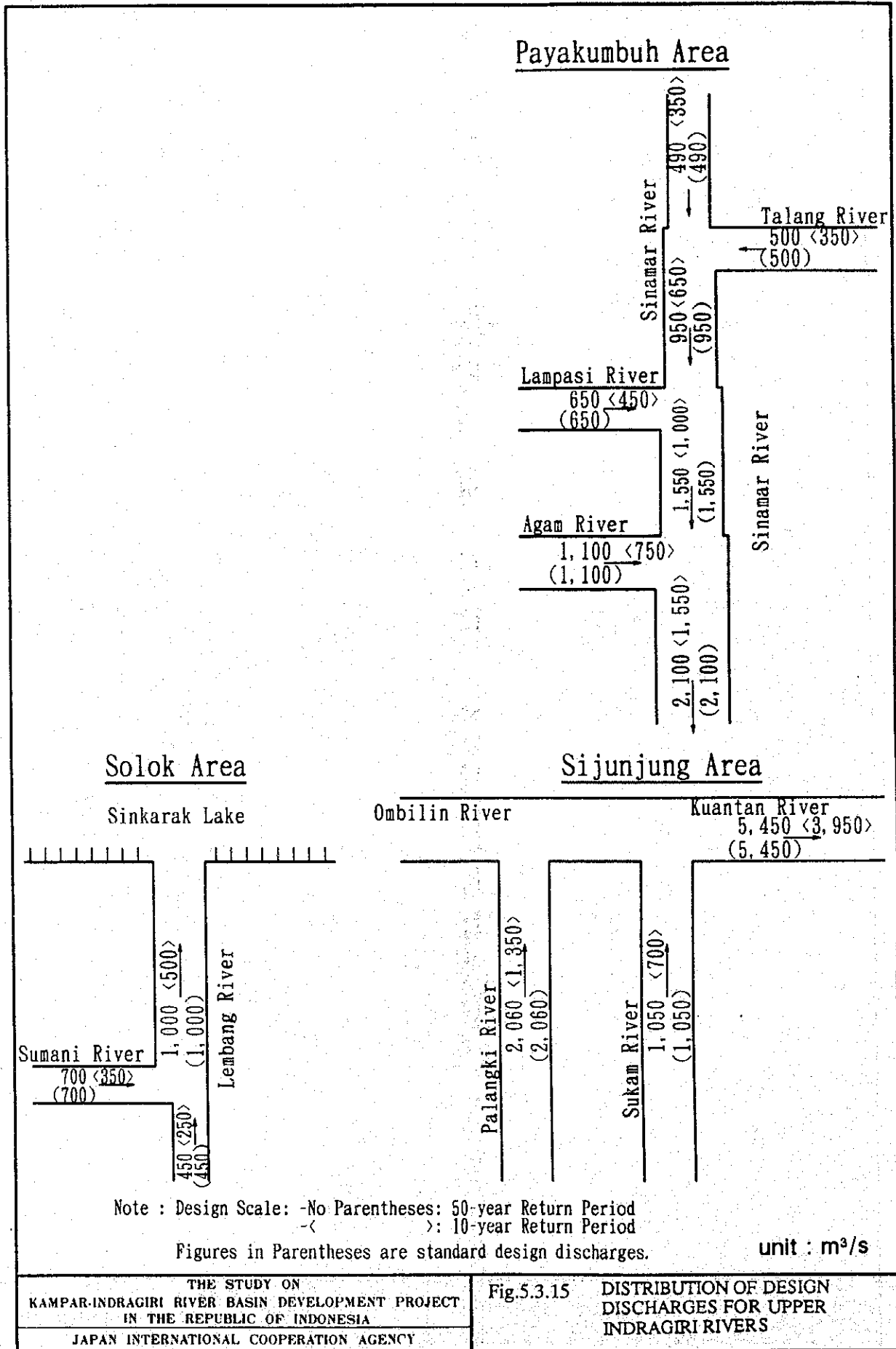
Unit: m

River	No.	Accm. Distance (km)	Type	B1	B2	B3	h2
Indragiri	-1	0.0					
	No. 14	59.9	B	6.0	-	3.0	1.8
	No. 40	122.1	B	6.0	600	3.0	1.8
	No. 93	219.0	A	5.0	300	-	1.2

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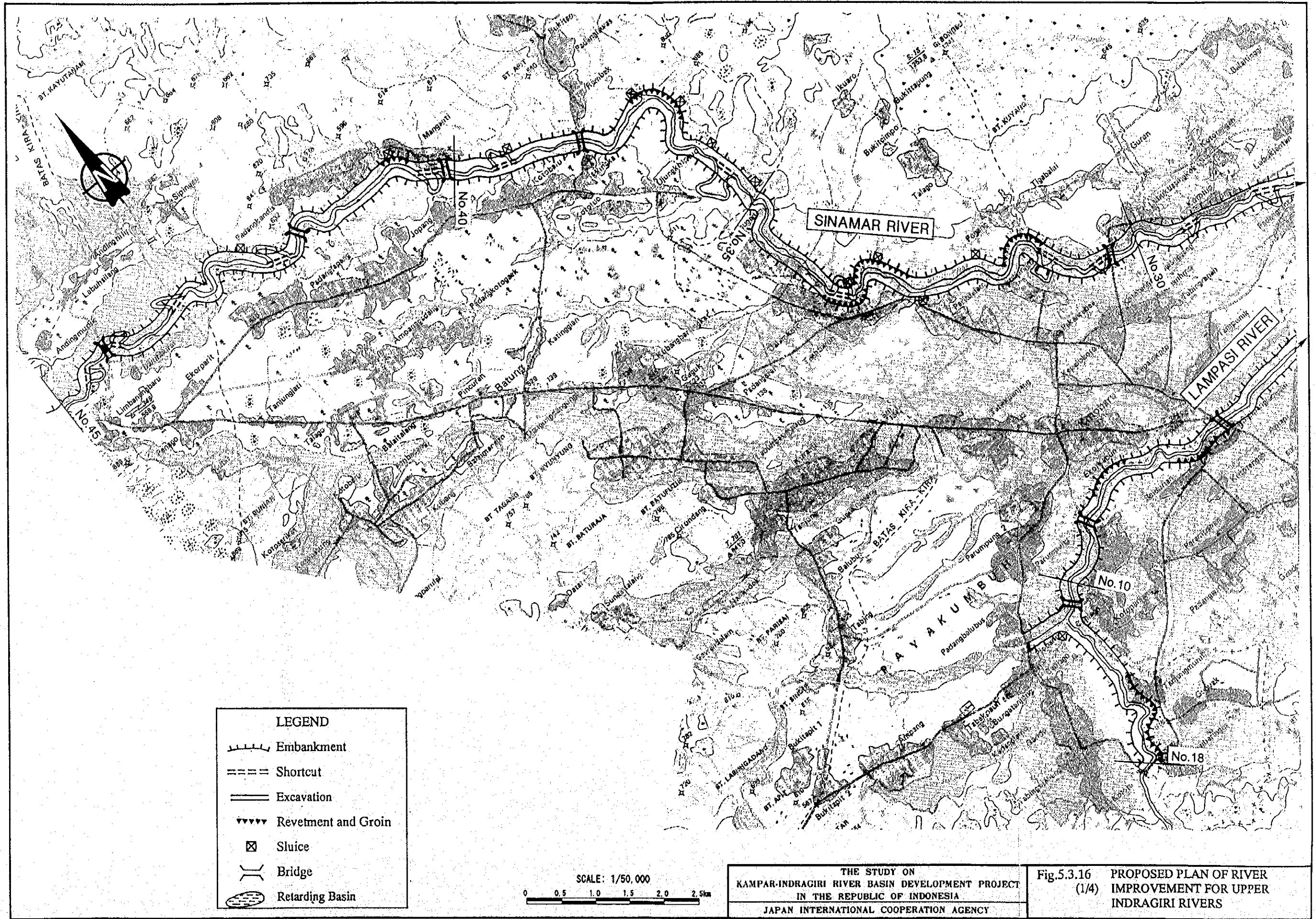
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig.5.3.14 PROPOSED CROSS SECTIONS FOR
 KUANTAN-INDRAGIRI RIVER



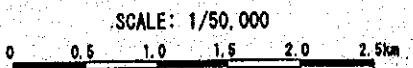
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Fig.5.3.15 DISTRIBUTION OF DESIGN DISCHARGES FOR UPPER INDRAGIRI RIVERS



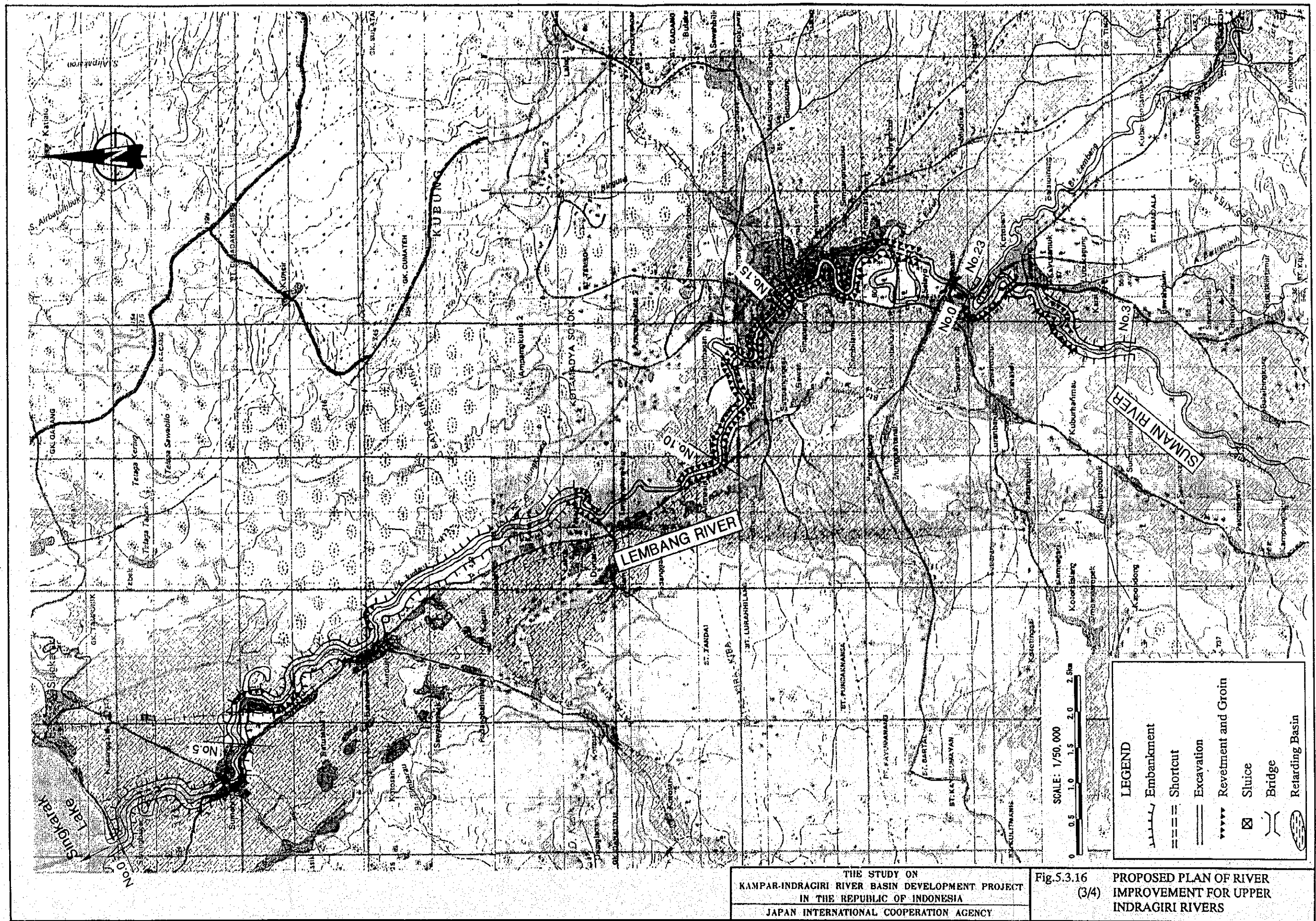


LEGEND	
	Embankment
	Shortcut
	Excavation
	Revetment and Groin
	Sluice
	Bridge
	Retarding Basin



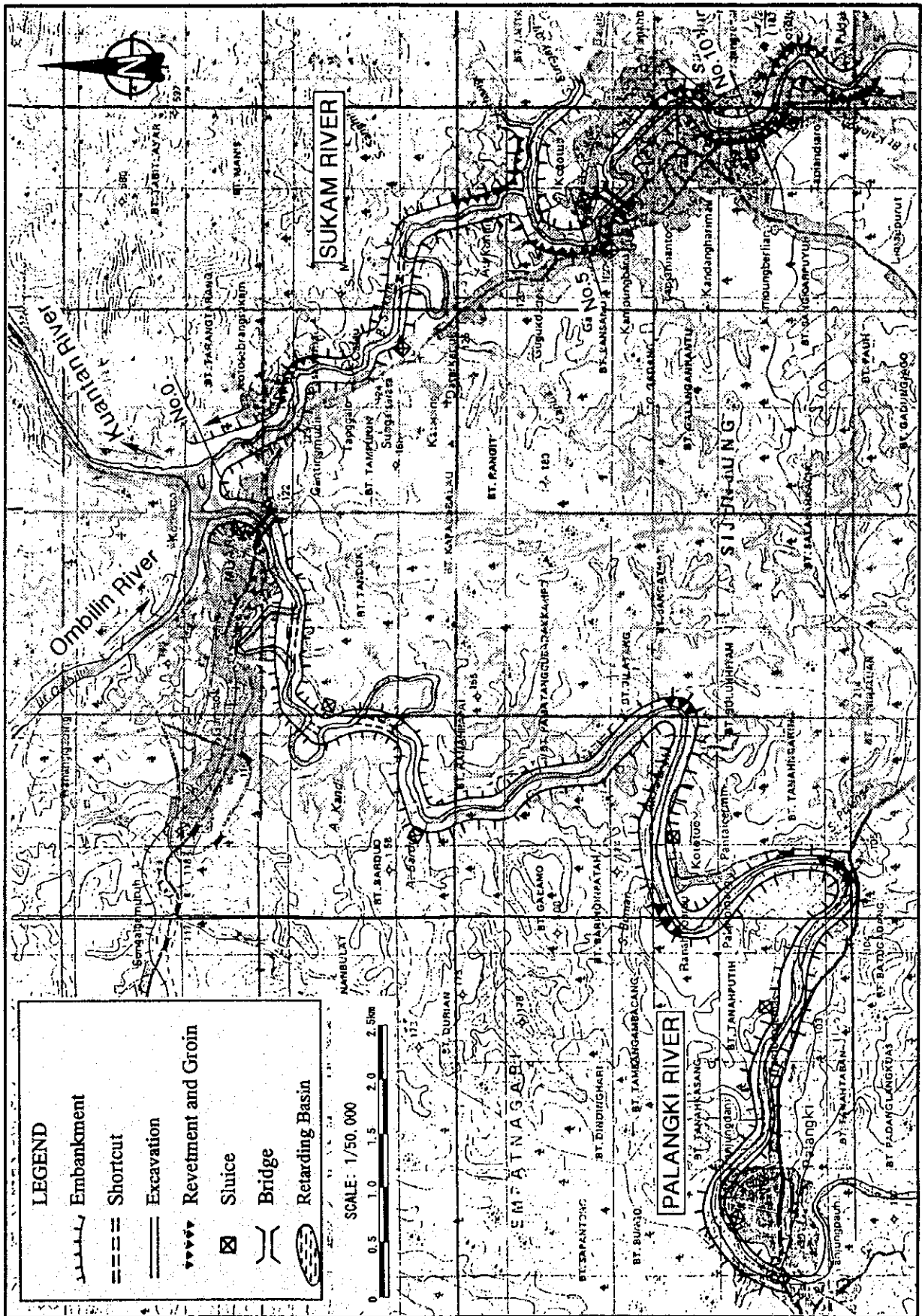
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Fig.5.3.16 PROPOSED PLAN OF RIVER
 IMPROVEMENT FOR UPPER
 INDRAGIRI RIVERS



THE STUDY ON
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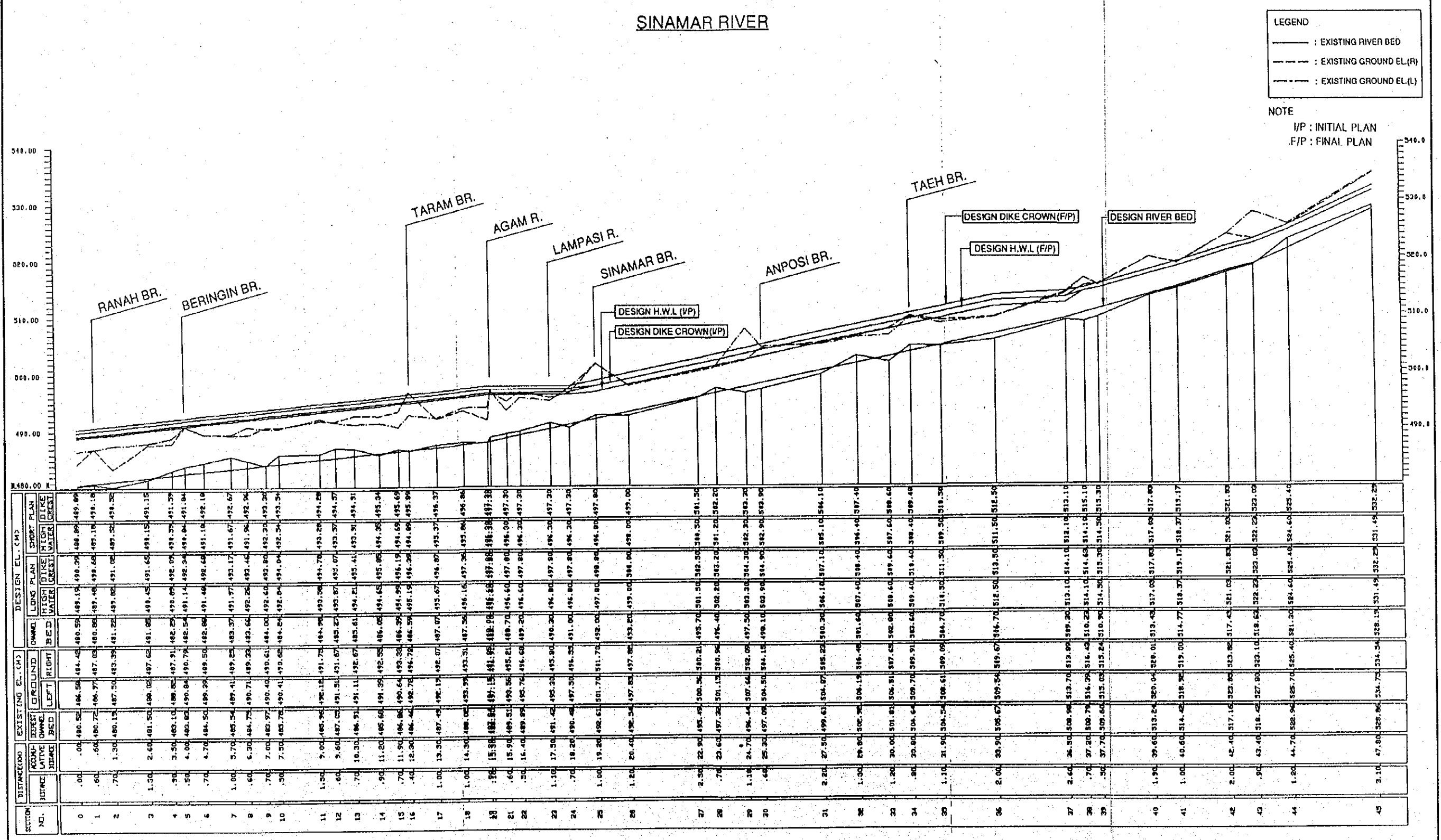
Fig.5.3.16 PROPOSED PLAN OF RIVER
 IMPROVEMENT FOR UPPER
 INDRAGIRI RIVERS
 (3/4)



THE STUDY ON
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Fig.5.3.16 PROPOSED PLAN OF RIVER IMPROVEMENT FOR UPPER INDRAGIRI RIVERS (4/4)

SINAMAR RIVER



LEGEND

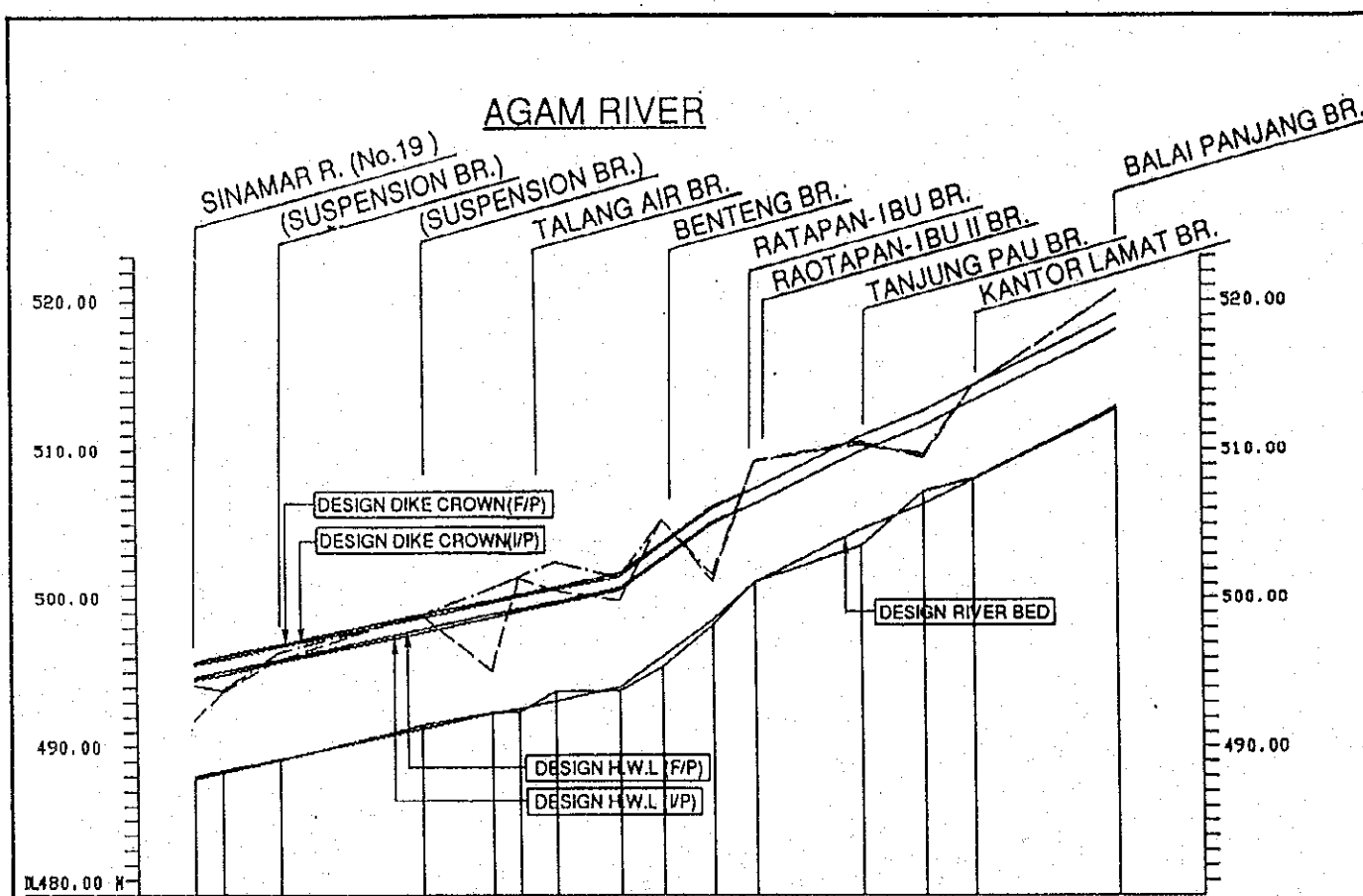
- : EXISTING RIVER BED
- - - : EXISTING GROUND EL.(R)
- - - : EXISTING GROUND EL.(L)

NOTE
 I/P : INITIAL PLAN
 F/P : FINAL PLAN

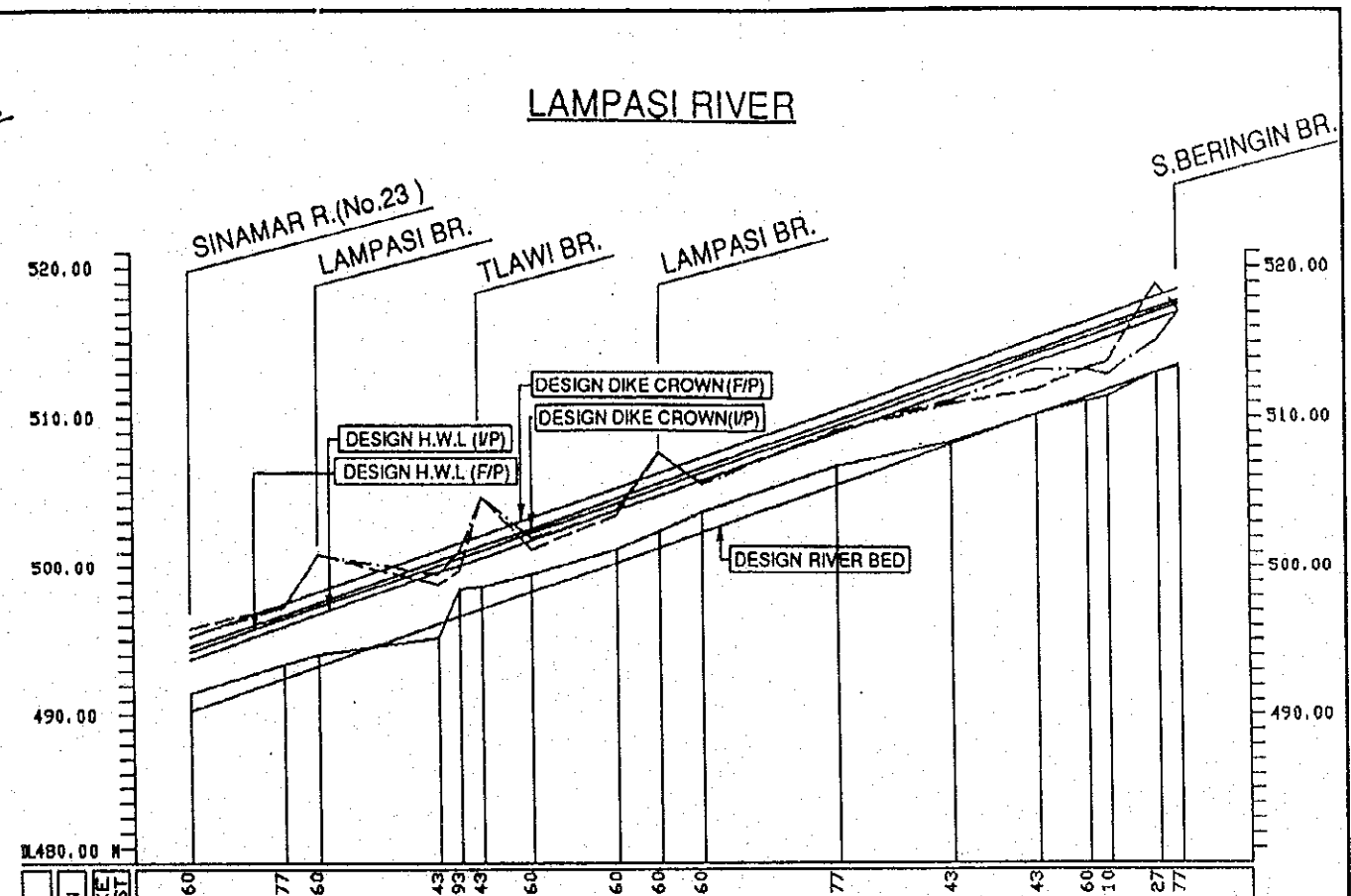
SECTION NO.	DISTANCE (KM)	EXISTING EL. (M)		DESIGN EL. (M)		SHORT PLAN	
		RIGHT	LEFT	RIGHT	LEFT	DIKE HIGH	DIKE CREST
0	0.00	480.52	484.45	480.52	484.45	480.52	484.45
1	0.60	480.72	486.37	480.72	486.37	480.72	486.37
2	1.30	480.15	487.30	480.15	487.30	480.15	487.30
3	2.00	481.50	489.02	481.50	489.02	481.50	489.02
4	3.00	483.10	488.82	483.10	488.82	483.10	488.82
5	4.00	480.82	490.84	480.82	490.84	480.82	490.84
6	4.70	484.50	489.20	484.50	489.20	484.50	489.20
7	5.70	485.34	489.41	485.34	489.41	485.34	489.41
8	6.30	484.72	490.71	484.72	490.71	484.72	490.71
9	7.00	482.97	490.40	482.97	490.40	482.97	490.40
10	7.30	485.78	490.41	485.78	490.41	485.78	490.41
11	8.00	485.96	491.72	485.96	491.72	485.96	491.72
12	9.00	487.03	491.51	487.03	491.51	487.03	491.51
13	10.30	486.31	491.11	486.31	491.11	486.31	491.11
14	11.20	486.66	491.39	486.66	491.39	486.66	491.39
15	11.90	486.86	490.64	486.86	490.64	486.86	490.64
16	12.30	486.42	488.78	486.42	488.78	486.42	488.78
17	13.30	487.42	492.07	487.42	492.07	487.42	492.07
18	14.30	488.02	493.31	488.02	493.31	488.02	493.31
19	15.30	488.15	493.86	488.15	493.86	488.15	493.86
20	16.40	489.85	495.76	489.85	495.76	489.85	495.76
21	17.50	491.42	495.30	491.42	495.30	491.42	495.30
22	18.20	490.48	495.35	490.48	495.35	490.48	495.35
23	19.20	492.61	491.70	492.61	491.70	492.61	491.70
24	20.40	492.54	497.82	492.54	497.82	492.54	497.82
25	21.60	493.22	497.82	493.22	497.82	493.22	497.82
26	22.90	495.48	500.21	495.48	500.21	495.48	500.21
27	23.60	497.20	501.12	497.20	501.12	497.20	501.12
28	24.70	496.44	507.66	496.44	507.66	496.44	507.66
29	25.30	497.08	504.50	497.08	504.50	497.08	504.50
30	27.50	499.61	504.97	499.61	504.97	499.61	504.97
31	28.90	500.15	506.48	500.15	506.48	500.15	506.48
32	30.00	501.83	506.31	501.83	506.31	501.83	506.31
33	30.80	504.64	509.70	504.64	509.70	504.64	509.70
34	31.90	504.54	508.61	504.54	508.61	504.54	508.61
35	33.90	505.67	509.54	505.67	509.54	505.67	509.54
36	34.90	510.24	520.04	510.24	520.04	510.24	520.04
37	36.90	508.98	512.70	508.98	512.70	508.98	512.70
38	37.20	509.72	514.42	509.72	514.42	509.72	514.42
39	37.70	509.60	515.03	509.60	515.03	509.60	515.03
40	39.00	513.24	520.04	513.24	520.04	513.24	520.04
41	40.00	514.42	518.36	514.42	518.36	514.42	518.36
42	42.10	517.10	522.80	517.10	522.80	517.10	522.80
43	42.10	518.42	527.80	518.42	527.80	518.42	527.80
44	44.70	520.94	525.70	520.94	525.70	520.94	525.70
45	47.80	528.86	534.75	528.86	534.75	528.86	534.75

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Fig.5.3.17 PROPOSED LONGITUDINAL PROFILE FOR UPPER INDRAGIRI RIVERS (1/4)



SECTION NO.	DISTANCE (KM)		EXISTING EL. (M)				DESIGN EL. (M)			
	DISTANCE	ACCUMULATIVE DISTANCE	DEEPEST CHANNEL BED	GROUND LEFT	GROUND RIGHT	CHANNEL BED	LONG PLAN HIGH WATER	LONG PLAN DIKE CREST	SHORT PLAN HIGH WATER	SHORT PLAN DIKE CREST
0	0.00	0.00	487.84	494.15	491.85	488.00	494.70	495.70	494.50	495.50
1	0.40	0.40	488.25	493.85	493.68	488.40	495.10	496.10	494.90	495.90
2	0.80	1.20	489.09	496.56	495.89	489.20	495.90	496.90	495.70	496.70
3	2.00	3.20	491.50	498.85	498.91	491.20	497.90	498.90	497.70	498.70
4	1.00	4.20	492.37	500.70	495.17	492.20	498.90	499.90	498.70	499.70
5	0.40	4.60	492.31	501.50	501.34	492.60	499.30	500.30	499.10	500.10
6	0.50	5.10	493.80	502.47	500.50	493.10	499.80	500.80	499.60	500.60
7	0.90	6.00	493.74	501.45	499.83	494.00	500.70	501.70	500.50	501.50
8	0.60	6.60	495.38	505.31	505.30	496.07	502.77	503.77	502.57	503.57
9	0.70	7.30	498.22	501.59	501.20	498.48	505.18	506.18	504.98	505.98
13	0.60	7.90	501.16	509.25	509.23	501.10	506.40	507.40	506.40	507.40
14	1.50	9.40	503.55	510.40	510.60	504.67	509.97	510.97	509.97	510.97
15	0.70	10.30	507.24	509.73	509.52	506.34	511.64	512.64	511.64	512.64
16	0.70	11.00	508.03	514.28	514.34	508.01	513.31	514.31	513.31	514.31
17	2.00	13.00	512.89	520.65	520.65	512.77	518.07	519.07	518.07	519.07

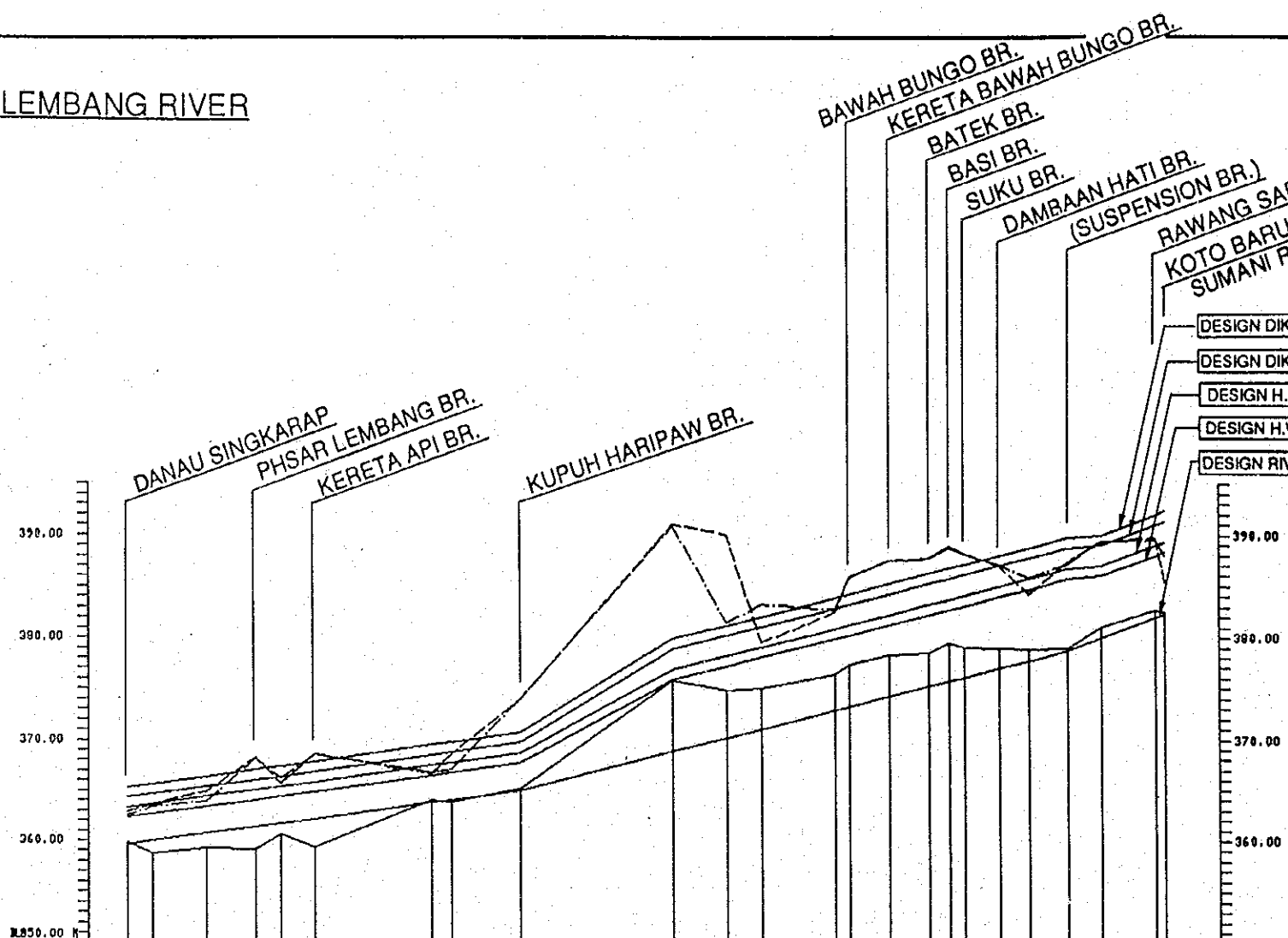


SECTION NO.	DISTANCE (KM)		EXISTING EL. (M)				DESIGN EL. (M)			
	DISTANCE	ACCUMULATIVE DISTANCE	DEEPEST CHANNEL BED	GROUND LEFT	GROUND RIGHT	CHANNEL BED	LONG PLAN HIGH WATER	LONG PLAN DIKE CREST	SHORT PLAN HIGH WATER	SHORT PLAN DIKE CREST
0	0.00	0.00	491.49	495.30	495.80	490.30	494.30	495.30	493.80	494.60
1	1.30	1.30	493.45	497.24	497.37	492.47	496.47	497.47	495.97	496.77
2	0.50	1.80	494.08	500.87	500.87	493.30	497.30	498.30	496.80	497.60
3	1.70	3.50	495.18	499.48	498.80	496.13	500.13	501.13	499.63	500.43
4	0.30	3.80	498.51	501.08	499.78	496.63	500.63	501.63	500.13	500.93
5	0.30	4.10	498.64	504.68	504.69	497.13	501.13	502.13	500.63	501.43
6	0.70	4.80	499.49	501.94	501.23	498.30	502.30	503.30	501.80	502.60
7	1.20	6.00	501.18	503.82	503.51	500.30	504.30	505.30	503.80	504.60
8	0.60	6.60	502.38	507.70	507.64	501.30	505.30	506.30	504.80	505.60
9	0.60	7.20	503.70	505.49	505.63	502.30	506.30	507.30	505.80	506.60
10	1.90	9.10	506.75	509.14	509.08	505.47	509.47	510.47	508.97	509.77
11	1.60	10.70	508.32	511.10	510.91	508.13	512.13	513.13	511.63	512.43
12	1.20	11.90	510.17	513.17	511.78	510.13	514.13	515.13	513.63	514.43
13	0.70	12.60	510.98	513.14	513.20	511.30	515.30	516.30	514.80	515.60
14	0.30	12.90	511.99	512.86	513.65	511.60	515.80	516.80	515.30	516.10
15	0.70	13.60	512.98	515.11	518.83	512.97	516.97	517.97	516.47	517.27
16	0.30	13.90	513.32	516.96	517.12	513.47	517.47	518.47	516.97	517.77

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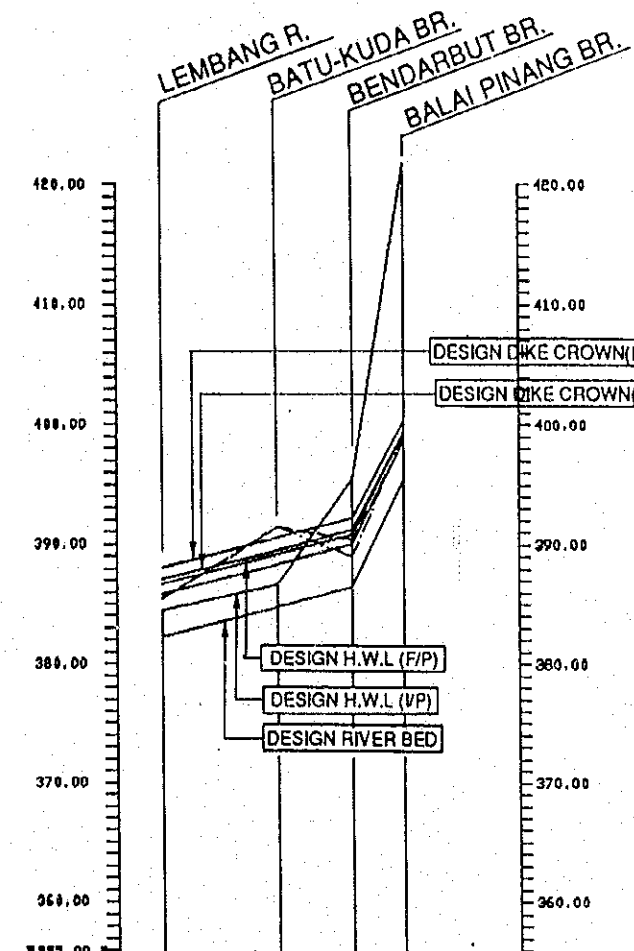
Fig.5.3.17
(2/4) PROPOSED LONGITUDINAL
PROFILE FOR UPPER
INDRAGIRI RIVERS

LEMBANG RIVER



SECTION NO.	DISTANCE (KM)	EXISTING EL. (M)		DESIGN EL. (M)				
		RIGHT	LEFT	CHANNEL BED	LONG DIKE WATER CREST	HIGH DIKE WATER CREST	SHORT PLAN HIGH DIKE WATER CREST	
0	0.00	359.80	362.50	362.87	364.30	365.30	362.30	363.30
1	0.50	358.70	363.42	363.66	364.63	365.63	362.63	363.63
2	1.10	359.28	363.86	364.92	366.68	367.68	364.38	365.38
3	1.00	359.14	368.21	368.23	361.33	366.05	364.05	365.05
4	0.30	360.58	366.20	365.70	361.63	366.39	364.39	365.39
5	0.70	359.41	368.55	368.39	362.16	366.86	364.86	365.86
6	2.40	364.05	366.81	366.67	363.78	368.48	366.48	367.48
7	0.40	363.80	367.10	366.60	364.05	368.75	366.75	367.75
8	1.40	365.22	373.99	373.96	365.00	369.70	367.70	368.70
9	3.10	375.81	390.80	391.00	368.83	378.83	375.83	376.83
10	1.10	374.79	381.47	396.00	376.19	386.19	377.19	378.19
11	0.70	375.05	383.25	379.56	371.05	381.05	378.05	379.05
12	1.40	376.43	382.80	382.52	372.50	382.50	379.50	380.50
13	0.30	377.40	385.97	385.82	373.27	383.27	380.27	381.27
14	0.80	378.50	387.50	387.50	374.26	383.26	381.26	382.26
15	0.90	378.51	387.73	387.69	375.25	383.25	382.25	383.25
16	0.10	379.44	388.85	388.70	375.74	383.74	382.74	383.74
17	0.30	379.05	388.15	388.15	376.11	387.11	383.11	384.11
18	0.70	378.92	387.06	386.99	376.96	387.96	383.96	384.96
19	0.60	378.82	385.79	384.27	377.72	388.72	384.72	385.72
20	0.80	378.96	387.17	387.33	378.70	389.70	385.70	386.70
21	0.70	381.05	389.39	389.35	388.00	389.00	386.00	387.00
22	1.20	382.57	388.26	388.10	388.00	388.00	388.00	388.00

SUMANI RIVER



SECTION NO.	DISTANCE (KM)	EXISTING EL. (M)		DESIGN EL. (M)				
		RIGHT	LEFT	CHANNEL BED	HIGH DIKE WATER CREST	LONG DIKE WATER CREST	SHORT PLAN HIGH DIKE WATER CREST	
0	0.00	364.47	385.51	385.44	382.32	387.12	385.92	386.72
1	2.00	386.70	391.31	391.49	381.82	387.62	388.42	389.22
2	3.30	395.52	389.01	390.34	386.46	391.23	392.23	393.03
3	4.20	421.77	399.27	398.73	395.42	399.35	400.35	401.15

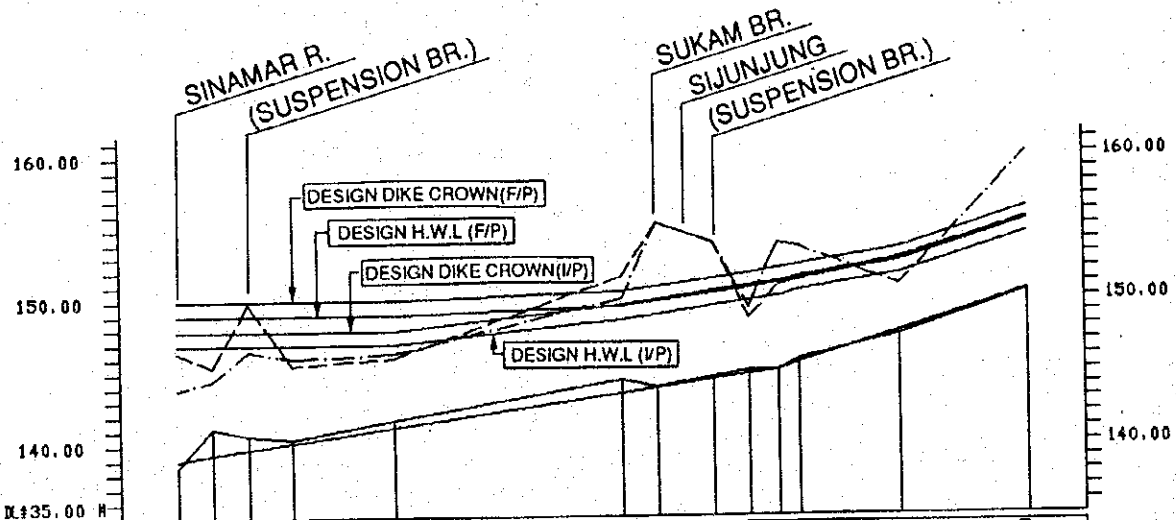
LEGEND

- : EXISTING RIVER BED
- - - : EXISTING GROUND EL.(R)
- - - : EXISTING GROUND EL.(L)

THE STUDY ON KAMPAR-INDRAGIRI RIVER BASIN DEVELOPMENT PROJECT IN THE REPUBLIC OF INDONESIA
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 Fig.5.3.17 (3/4) PROPOSED LONGITUDINAL PROFILE FOR UPPER INDRAGIRI RIVERS

SUKAM RIVER

LEGEND	
	: EXISTING RIVER BED
	: EXISTING GROUND EL.(R)
	: EXISTING GROUND EL.(L)



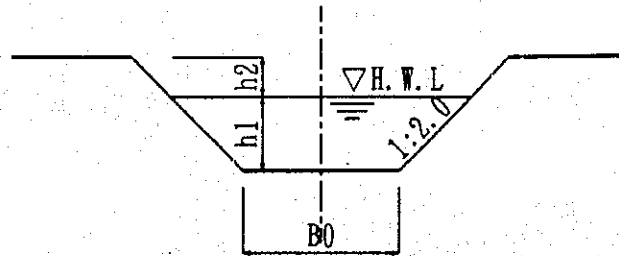
SECTION NO.	DISTANCE (KM)		EXISTING EL. (M)				DESIGN EL. (M)			
	DISTANCE	ACCUMULATIVE DISTANCE	GROUND		CHANNEL BED	LONG PLAN		SHORT PLAN		
			LEFT	RIGHT		HIGH WATER	DIKE CREST	HIGH WATER	DIKE CREST	
0	.00	.00	138.49	143.90	146.40	139.00	149.00	150.00	146.90	147.90
1	.50	.50	141.20	144.50	145.40	139.36	149.00	150.00	146.90	147.90
2	.50	1.00	140.71	146.50	149.80	139.71	149.00	150.00	146.90	147.90
3	.60	1.60	140.38	146.00	145.50	140.14	149.00	150.00	146.90	147.90
4	1.40	3.00	141.71	146.30	146.00	141.14	149.00	150.00	146.90	147.90
5	3.20	6.20	144.38	150.00	151.50	143.43	149.43	150.43	148.53	149.53
6	.50	6.70	143.91	153.20	155.20	143.79	149.79	150.79	148.89	149.89
7	.80	7.50	144.53	153.90	153.80	144.36	150.36	151.36	149.46	150.46
8	.50	8.00	144.99	149.30	148.60	144.71	150.71	151.71	149.81	150.81
9	.40	8.40	144.99	153.80	150.80	145.00	151.00	152.00	150.10	151.10
10	.30	8.70	145.76	153.50	151.20	145.46	151.26	152.26	150.46	151.46
11	1.40	10.10	147.36	150.80	152.70	147.62	152.42	153.42	151.62	152.62
12	1.80	11.90	150.33	160.00	155.30	150.39	155.19	156.19	154.39	155.38

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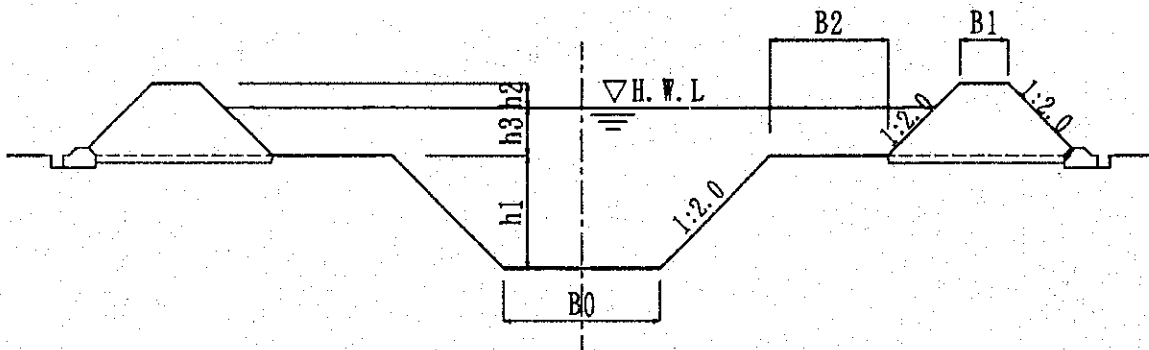
Fig. 5.3.17
(4/4) PROPOSED LONGITUDINAL PROFILE FOR UPPER INDRAGIRI RIVERS

Payakumbuh Area

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION



Unit: m

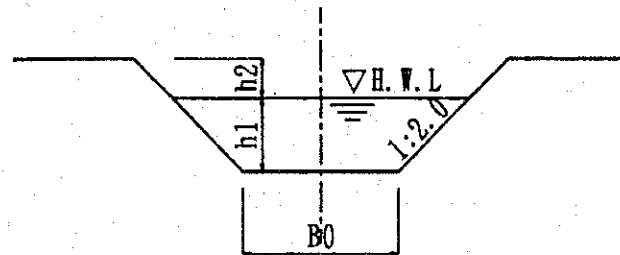
River	No.	Accm. Distance (km)	Type	B0	B1	B2	h1	h2	h3
Sinamar	No. 0	0.0							
	No. 19	15.2	B	80	4.0	10	6.0	1.2	2.6
	No. 23	17.5	B	70	4.0	10	5.5	1.0	1.3
	No. 37	36.5	B	50	4.0	10	4.5	1.0	1.3
	No. 43	43.5	A	50	—	—	3.6	0.8	—
	No. 45	47.8	A	45	—	—	3.3	0.8	—
Agam	No. 0	0.0							
	No. 10	7.5	A	40	—	—	5.7	1.0	—
	No. 17	13.3	A	40	—	—	4.3	1.0	—
Lampasi	No. 0	0.0							
	No. 16	14.6	B	30	4.0	10	3.5	1.0	1.5

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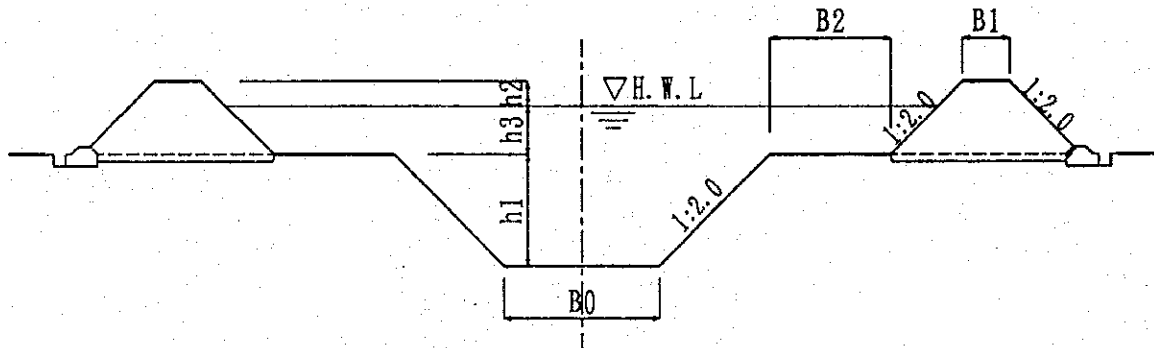
Fig.5.3.18 PROPOSED CROSS SECTIONS FOR
(1/3) UPPER INDRAGIRI RIVERS

Solok Area

TYPE-A CROSS SECTION



TYPE-B CROSS SECTION

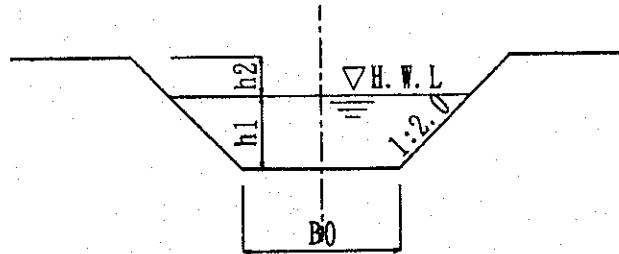


Unit: m

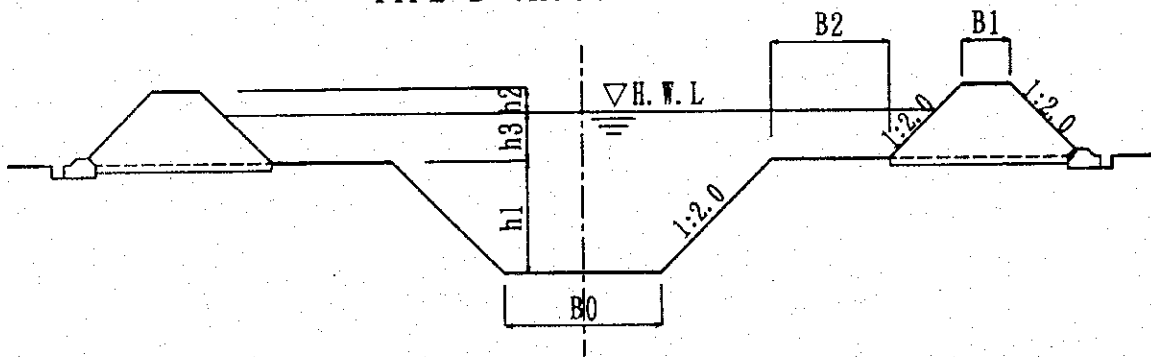
River	No.	Accm. Distance (km)	Type	B0	B1	B2	h1	h2	h3
Lembang	No. 0	0.0							
	No. 8	8.0	B	70	4.0	10	4.5	1.0	1.2
	No. 23	22.2	A	20	-	-	7.7	1.0	-
Sumani	No. 0	0.0							
	No. 3	4.2	A	25	4.0	10	3.5	1.0	1.3

Sijunjung Area

TYPE-A CROSS SECTION

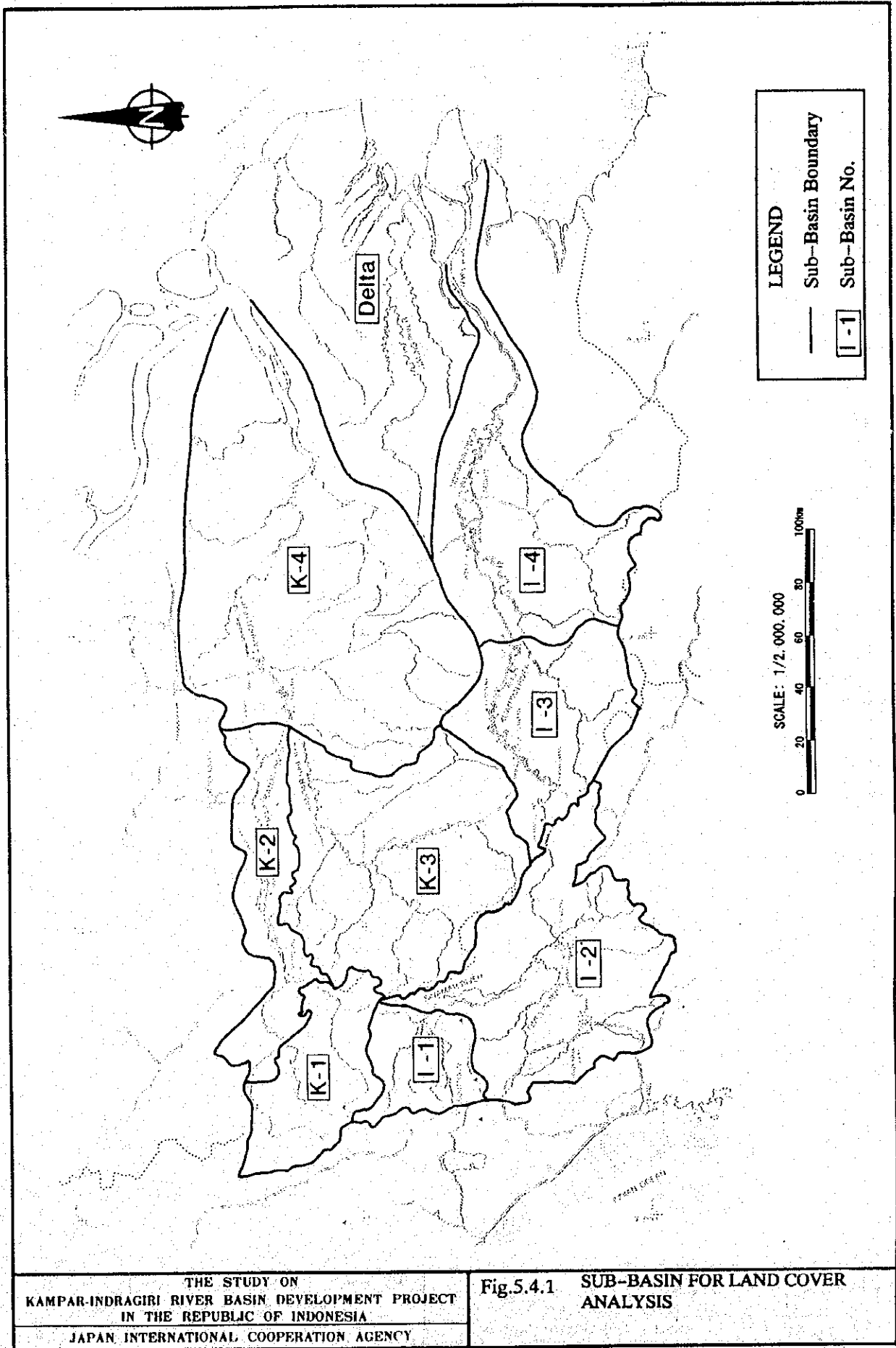


TYPE-B CROSS SECTION



Unit: m

River	No.	Accm. Distance (km)	Type	B0	B1	B2	h1	h2	h3
Sukam	No. 0	0.0							
	No. 9	8.4	B	60	4.0	10	3.0	1.0	1.8
	No. 12	11.9	B	40	4.0	10	4.5	1.0	2.5
Palangki	No. 0	0.0							
	No. 18	18.0	B	90	4.0	10	5.5	1.2	2.1

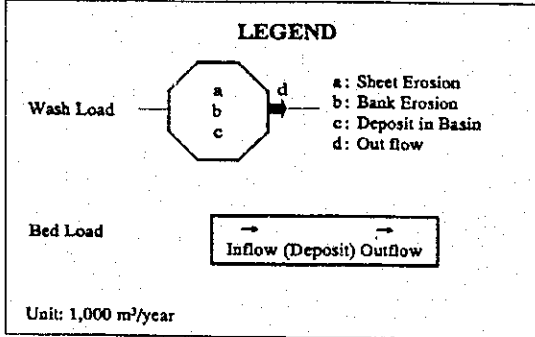
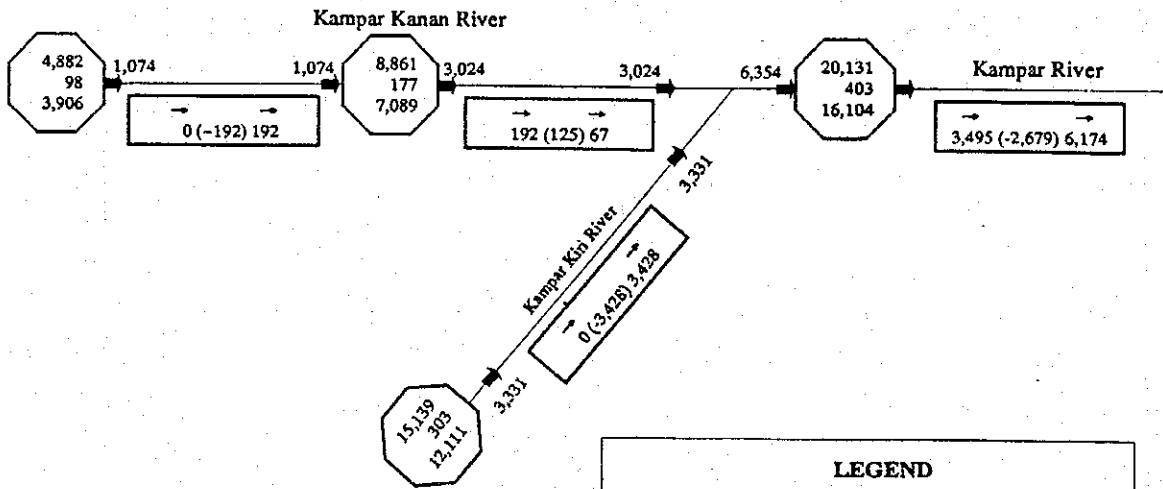


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Fig.5.4.1 SUB-BASIN FOR LAND COVER ANALYSIS

KAMPAR RIVER BASIN

Present Condition



With Project

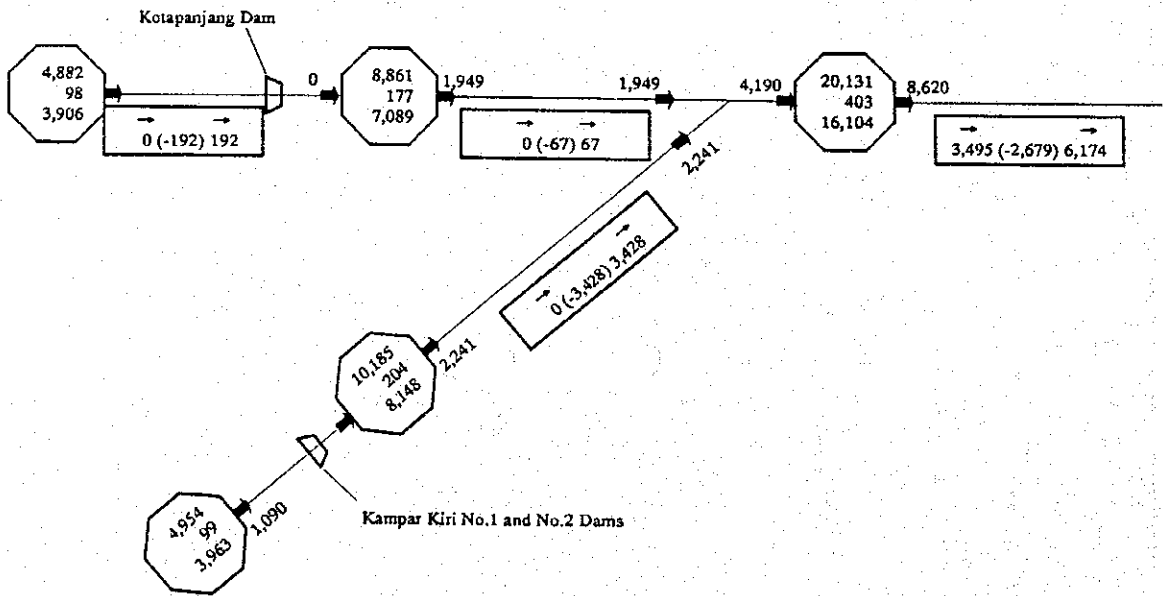
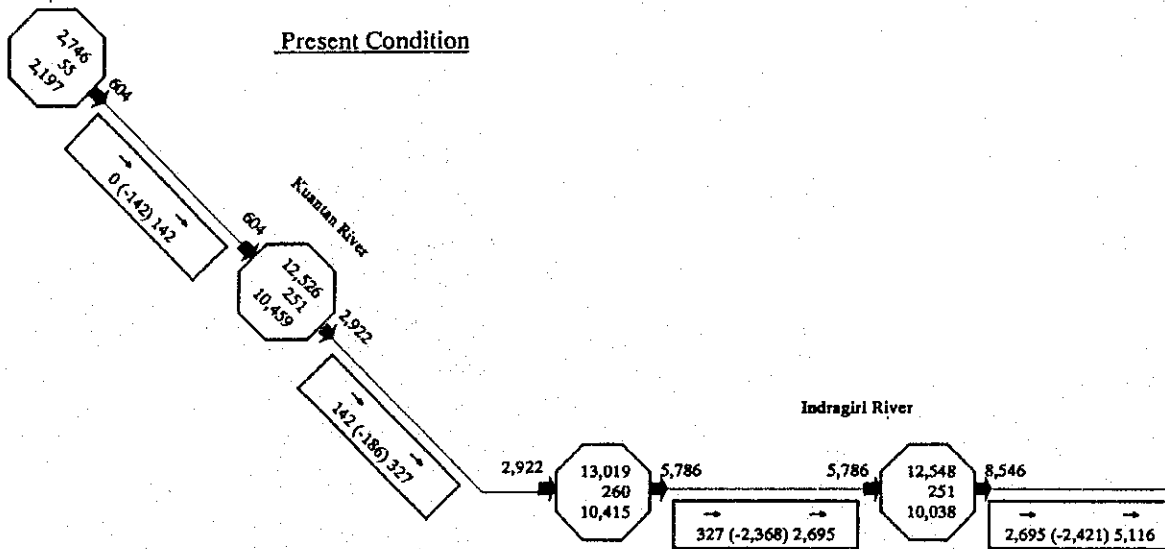


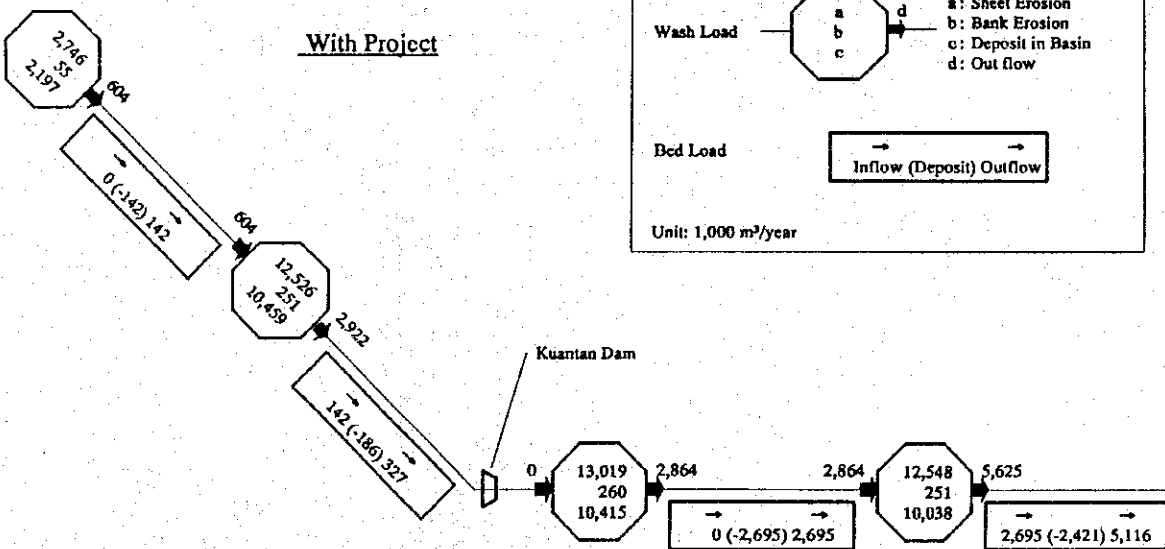
Fig.5.4.2 SEDIMENT BALANCE
(1/2)

KUANTAN-INDRAGIRI RIVER BASIN

Present Condition



With Project



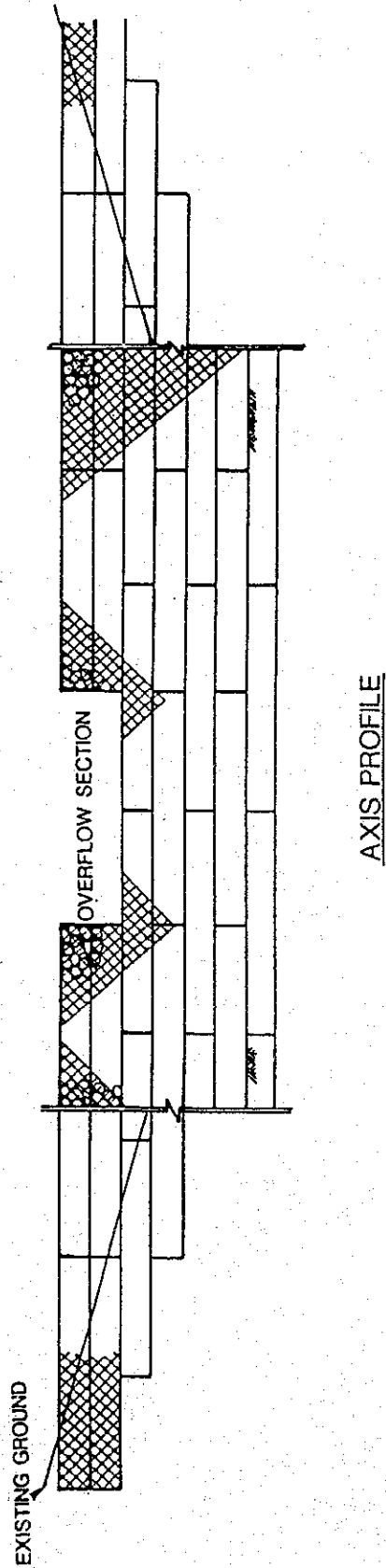
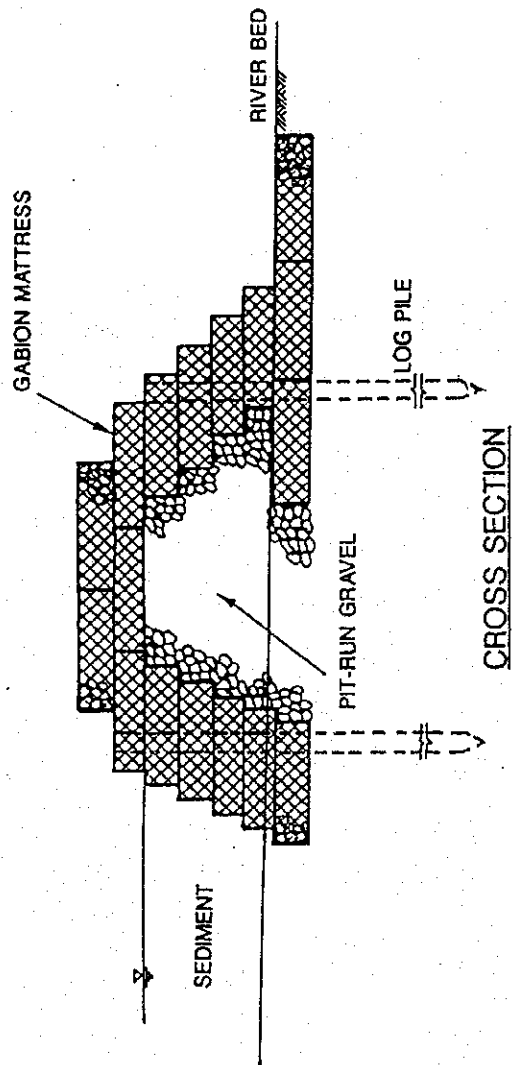
LEGEND

Wash Load: Octagon with labels a, b, c, d

- a: Sheet Erosion
- b: Bank Erosion
- c: Deposit in Basin
- d: Out flow

Bed Load: Rectangle with labels Inflow, Deposit, Outflow

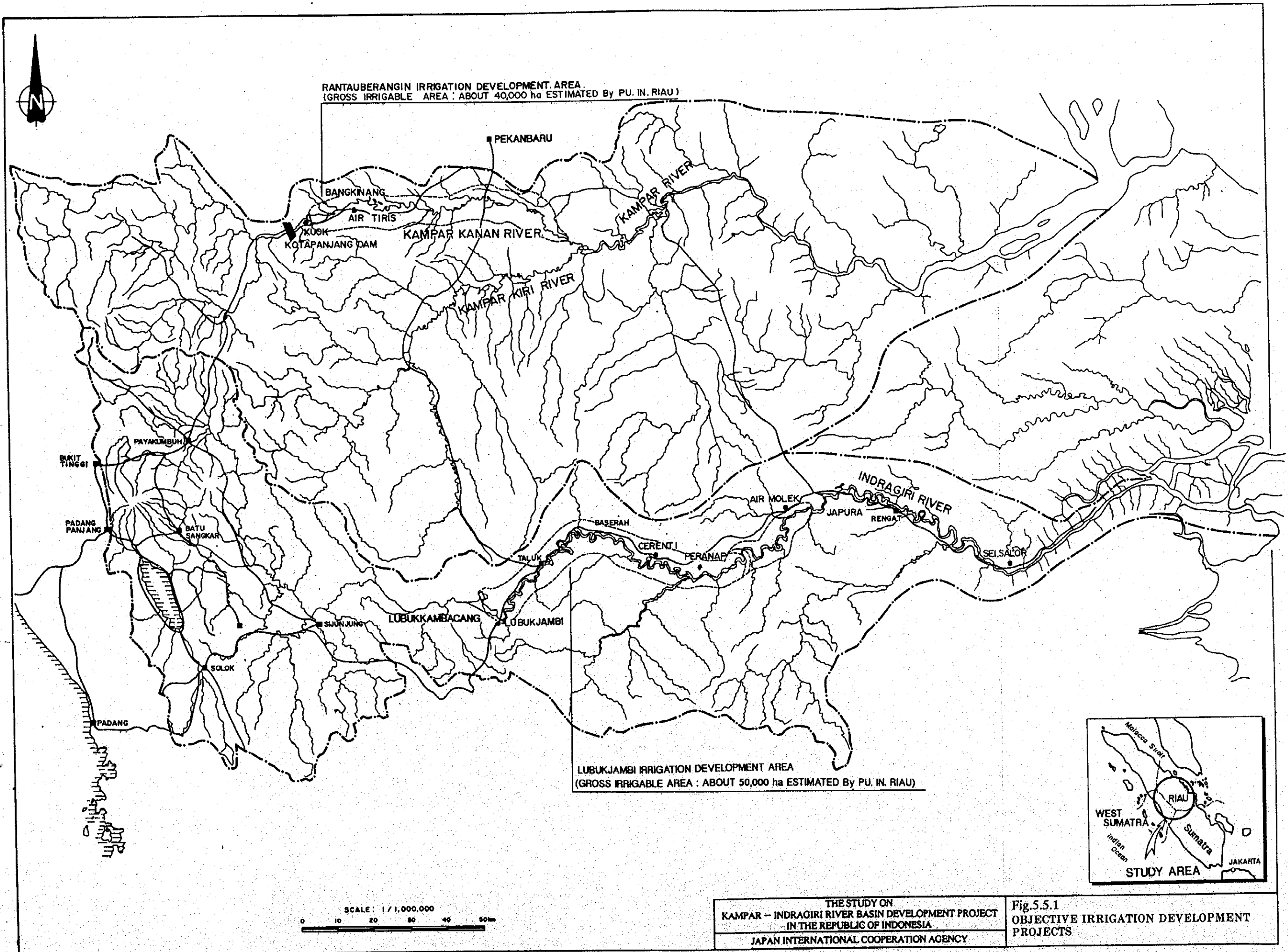
Unit: 1,000 m³/year



THE STUDY ON
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Fig.5.4.3 STANDARD FEATURES OF GABION DAM



RANTAUBERANGIN IRRIGATION DEVELOPMENT AREA
 (GROSS IRRIGABLE AREA : ABOUT 40,000 ha ESTIMATED By PU. IN. RIAU)

LUBUKJAMBI IRRIGATION DEVELOPMENT AREA
 (GROSS IRRIGABLE AREA : ABOUT 50,000 ha ESTIMATED By PU. IN. RIAU)

SCALE : 1 / 1,000,000
 0 10 20 30 40 50 km

THE STUDY ON
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Fig.5.5.1
 OBJECTIVE IRRIGATION DEVELOPMENT
 PROJECTS

