

RIVER MAINTENANCE FLOW

TABLE 5.1 MUDA DAM SPILL RECORDS (1970 - 1988), (1) - (6) ①

Year	Month	No.	Spill (cu. l/sec)	Spill (cu. m/sec.)	Year	Month	No.	Spill (cu. l/sec)	Spill (cu. m/sec.)
1970	Dec.	1	113	3.20			47	472	13.36
		2	80	2.26			48	418	11.83
		3	133	3.76			49	397	11.24
		4	2171	61.44			50	347	9.82
		5	1524	43.13				7706	218.08
		6	1015	28.72	1971	Sep.	51	377	10.67
		7	887	25.10			52	272	7.70
			5923	167.62			53	272	7.70
1971	Jan.	8	644	18.23			54	367	10.39
		9	846	23.94			55	397	11.24
		10	887	25.10			56	527	14.91
		11	957	27.08			57	561	15.88
		12	1718	48.62			58	527	14.91
		13	1475	41.74			59	768	21.73
		14	1196	33.85			60	1000	28.30
		15	914	25.87			61	833	23.57
		16	693	19.61			62	644	18.23
		17	561	15.88			63	585	16.56
		18	429	12.14			64	527	14.91
		19	347	9.82			65	516	14.60
		20	272	7.70			66	450	12.74
		21	211	5.97			67	408	11.55
		22	163	4.61			68	527	14.91
		23	126	3.57			69	768	21.73
		24	99	2.80			70	1089	30.82
		25	87	2.46			71	1165	32.97
		26	69	1.95			72	1044	29.55
		27	28	0.79			73	1074	30.39
		28	10	0.28			74	900	25.47
		29	3	0.08			75	768	21.73
			11735	332.10			76	644	18.23
1971	Mar.	30	119	3.37			77	472	13.36
		31	768	21.73			78	337	9.54
		32	971	27.48			79	245	6.93
		33	900	25.47			80	211	5.97
		34	833	23.57				18275	517.18
		35	418	11.83	1971	Oct.	81	148	4.19
		36	148	4.19			82	52	1.47
		37	28	0.79			83	28	0.79
							84	10	0.28
1971	Aug.	38	186	5.26			85	328	9.28
		39	472	13.36			86	418	11.83
		40	768	21.73			87	347	9.82
		41	900	25.47			88	367	10.39
		42	928	26.26			89	483	13.67
		43	833	23.57			90	644	18.23
		44	756	21.39			91	833	23.57
		45	644	18.23			92	1044	29.55
		46	585	16.56			93	1324	37.47

Table 5.1 MUDA Dam Spill Record-2

Year	Month	No.	Spill (cu. l/sec)	Spill (cu. m/sec.)	Year	Month	No.	Spill (cu. l/sec)	Spill (cu. m/sec.)
1971	Oct.	94	1356	38.37	1971	Dec.	142	2331	65.97
		95	1044	29.55			143	2372	67.13
		96	1275	36.08			144	2476	70.07
		97	1119	31.67			145	1524	43.13
		98	1524	43.13			146	1307	36.99
		99	1356	38.37			147	1259	35.63
		100	1196	33.85			148	1119	31.67
		101	1345	38.06			149	1044	29.55
		102	1524	43.13			150	1196	33.85
		103	1324	37.47			151	1275	36.08
		104	1356	38.37			152	1165	32.97
		105	1524	43.13			153	1074	30.39
		106	1772	50.15			154	1228	34.75
		107	1439	40.72			155	1356	38.37
		108	1664	47.09			156	1324	37.47
		109	1977	55.95			157	1883	53.29
		110	1439	40.72			158	1790	50.66
		111	1524	43.13			159	1559	44.12
			31784	899.49			160	2034	57.56
1971	Nov.	112	1473	41.69			161	1996	56.49
		113	1275	36.08			162	1736	49.13
		114	1119	31.67			163	1559	44.12
		115	1196	33.85			164	1389	39.31
		116	1524	43.13			165	1243	35.18
		117	1389	39.31			166	1196	33.85
		118	1423	40.27			167	1165	32.97
		119	1044	29.55			168	1119	31.67
		120	928	26.26			169	1044	29.55
		121	833	23.57			170	971	27.48
		122	768	21.73			171	928	26.26
		123	705	19.95			172	900	25.47
		124	780	22.07				44562	1261.10
		125	705	19.95					
		126	2372	67.13					
		127	1196	33.85					
		128	1181	33.42					
		129	900	25.47					
		130	768	21.73					
		131	705	19.95					
		132	833	23.57					
		133	860	24.34					
		134	873	24.71					
		135	768	21.73					
		136	807	22.84					
		137	1275	36.08					
		138	1356	38.37					
		139	1196	33.85					
		140	1044	29.55					
		141	800	22.64					
			32096	908.32					

(5.1)
Table Muda Dam Spill Record-3

Year	Month	No.	Spill (cu. f/sec)	Spill (cu. m/sec.)	Year	Month	No.	Spill (cu. f/sec)	Spill (cu. m/sec.)
1972	Jan.	1	860	24.34			48	228	6.45
		2	833	23.57			49	113	3.20
		3	743	21.03			50	28	0.79
		4	644	18.23			51	10	0.28
		5	632	17.89			52	52	1.47
		6	620	17.55			53	585	16.56
		7	620	17.55			54	5618	158.99
		8	620	17.55			55	8225	232.77
		9	608	17.21			56	4506	127.52
		10	585	16.56			57	3134	88.69
		11	573	16.22			58	2271	64.27
		12	573	16.22			59	2073	58.67
		13	527	14.91			60	1700	48.11
		14	505	14.29			61	1439	40.72
		15	483	13.67			62	1275	36.08
		16	228	6.45			63	1196	33.85
		17	52	1.47			64	1119	31.67
		Sub-total	9706	274.68			65	971	27.48
1972	Nov.	18	7	0.20			66	718	20.32
		19	13	0.37			67	367	10.39
		20	472	13.36			68	318	9.00
		21	860	24.34			Sub-total	48191	1363.81
		22	1029	29.12	1973	Jan.	69	228	6.45
		23	3608	102.11			70	148	4.19
		24	2372	67.13			71	113	3.20
		25	1883	53.29			72	99	2.80
		26	2073	58.67			73	80	2.26
		27	2271	64.27			74	80	2.26
		28	1920	54.34			75	52	1.47
		29	1939	54.87			76	52	1.47
		30	2171	61.44			77	28	0.79
		31	2073	58.67			78	10	0.28
		32	2132	60.34			79	3	0.08
		33	1883	53.29			80	228	6.45
		34	1611	45.59			81	561	15.88
		35	1439	40.72			82	900	25.47
		36	1275	36.08			83	873	24.71
		37	1646	46.58			84	833	23.57
		Sub-total	32677	924.76			85	768	21.73
1972	Dec	38	1439	40.72			86	644	18.23
		39	1275	36.08			87	585	16.56
		40	1439	40.72			88	527	14.91
		41	1646	46.58			89	527	14.91
		42	1700	48.11			90	505	14.29
		43	1611	45.59			91	272	7.70
		44	1473	41.69			92	52	1.47
		45	768	21.73			Sub-total	8168	231.15
		46	527	14.91					
		47	367	10.39					

(5.1)
Table Muda Dam Spill Record-4

Year	Month	No.	Spill (cu. m/sec.)	Spill (cu. m/sec.)	Year	Month	No.	Spill (cu. f/sec)	Spill (cu. m/sec.)
1973	Jun.	93	28	0.79	1973	Nov.	141	1611	45.59
		94	186	5.26			142	1524	43.13
		95	318	9.00			143	1439	40.72
		96	367	10.39			144	1275	36.08
		97	418	11.83			145	1196	33.85
		98	472	13.36			146	1576	44.60
		99	472	13.36			147	1524	43.13
		100	450	12.74			148	1275	36.08
		101	418	11.83			149	1275	36.08
		102	418	11.83			Sug-total	44461	1258.25
		103	367	10.39	1973	Dec.	150	1307	36.99
		104	367	10.39			151	1356	38.37
		105	418	11.83			152	1307	36.99
		106	418	11.83			153	1275	36.08
		107	418	11.83			154	1275	36.08
		108	367	10.39			155	1307	36.99
		109	113	3.20			156	1356	38.37
		Sug-total	6015	170.22			157	7258	205.40
1973	Oct.	110	106	3.00			158	13314	376.79
		111	527	14.91			159	7416	209.87
		112	887	25.10			160	4642	131.37
		113	928	26.26			161	3368	95.31
		114	1611	45.59			162	2688	76.07
		115	1883	53.29			163	2581	73.04
		116	2271	64.27			164	3227	91.32
		117	1883	53.29			165	3983	112.72
		118	1473	41.69			166	3368	95.31
		119	1324	37.47			167	2731	77.29
		Sug-total	12893	364.87			168	3476	98.37
1973	Nov.	120	1196	33.85			169	2112	59.77
		121	1089	30.82			170	1977	55.95
		122	1243	35.18			171	1977	55.95
		123	1243	35.18			172	2073	58.67
		124	1119	31.67			173	1883	53.29
		125	971	27.48			174	1809	51.19
		126	971	27.48			175	1754	49.64
		127	942	26.66			176	1700	48.11
		128	928	26.26			177	1611	45.59
		129	928	26.26			178	1275	36.08
		130	1044	29.55			179	1275	36.08
		131	2171	61.44			180	1259	35.63
		132	2211	62.57			Sub-total	87940	2488.70
		133	1977	55.95					
		134	1524	43.13					
		135	2372	67.13					
		136	2372	67.13					
		137	2271	64.27					
		138	1883	53.29					
		139	1700	48.11					
		140	1611	45.59					

(5.1)

Table Muda Dam Spill Record-5

Year	Month	No.	Spill (cu. f/sec)	Spill (cu. m/sec.)	Year	Month	No.	Spill (cu. f/sec)	Spill (cu. m/sec.)
1974	Jan.	1	1243	35.18	1975	Dec.	52	644	18.23
		2	2414	68.32			53	3020	85.47
		3	1977	55.95			54	3134	88.69
		4	1736	49.13			55	2688	76.07
		5	1524	43.13			56	2171	61.44
		6	318	9.00			57	2073	58.67
		7	113	3.20			58	1700	48.11
		8	99	2.80			59	1611	45.59
		9	80	2.26			60	1524	43.13
		10	52	1.47			61	1524	43.13
		11	28	0.79		Sub-Total		20089	568.52
		12	10	0.28	1976	Jan.	62	1356	38.37
		13	28	0.79			63	1275	36.08
		14	272	7.70			64	1196	33.85
		15	418	11.83			65	1119	31.67
		16	561	15.88			66	1044	29.55
		17	705	19.95				971	27.48
		18	768	21.73		Sub-total		6961	197.00
		19	833	23.57	1983	Dec.	67	3	0.08
		20	833	23.57			68	5530	156.50
		21	768	21.73			69	3983	112.72
		22	768	21.73			70	2476	70.07
	Sub-total		15548	440.01			71	1736	49.13
1974	Feb.	23	644	18.23			72	1456	41.20
		24	644	18.23			73	1165	32.97
		25	705	19.95			74	928	26.26
		26	668	18.90			75	1356	38.37
		27	620	17.55			76	1664	47.09
		28	644	18.23			77	1356	38.37
		29	644	18.23			78	985	27.88
		30	620	17.55			79	768	21.73
		31	596	16.87			80	596	16.87
		32	573	16.22			81	461	13.05
		33	527	14.91			82	328	9.28
		34	505	14.29			83	281	7.95
		35	505	14.29			84	203	5.74
		36	505	14.29			85	133	3.76
		37	483	13.67			86	80	2.26
		38	483	13.67			87	20	0.57
		39	472	13.36			88	3	0.08
		40	186	5.26		Sub-total		25511	721.96
		41	113	3.20	1987	Dec.	89	432	18.23
	Sub-total		10137	286.88			90	846	85.47
1974	Oct.	42	28	0.79			91	900	88.69
		43	318	9.00			92	6520	85.47
		44	705	19.95			93	4160	88.69
		45	730	20.66			94	2566	76.07
		46	730	20.66			95	2262	61.44
		47	705	19.95			96	1699	58.67
		48	644	18.23			97	1291	48.11
		49	705	19.95			98	1240	45.59
		50	730	20.66			99	1137	43.13
		51	80	2.26			100	900	43.13
	Sub-Total		5375	152.11			101	720	568.52

(5.1)

Table Muda Dam Spill Record-6

Year	Month	No.	Spill (cu. m/sec.)	Spill (cu. m/sec.)	Year	Month	No.	Spill (cu. f/sec)	Spill (cu. m/sec.)
		102	630	17.83			159	252	7.13
		103	495	14.01			160	225	6.37
		104	450	12.74			161	180	5.09
		105	387	10.95			162	90	2.55
		106	270	7.64			163	45	1.27
		107	270	7.64			164	0	0.00
		108	180	5.09		Sub-total		9927	280.93
		109	108	3.06	1988	Nov.	165	135	3.82
		110	3	0.08			166	90	2.55
	Sub-total		27466	777.29			167	3	0.08
1988	Sep.	111	315	8.91			168	450	12.74
		112	1240	35.09			169	477	13.50
		113	1291	36.54			170	405	11.46
		114	1104	31.24			171	216	6.11
		115	855	24.20			172	135	3.82
		116	900	25.47			173	1155	32.69
		117	810	22.92			174	29020	821.27
		118	666	18.85			175	12220	345.83
		119	720	20.38			176	5530	158.50
		120	985	27.88			177	4680	132.44
		121	917	25.95			178	2583	73.10
		122	720	20.38			179	2583	73.10
		123	630	17.83			180	1835	51.93
		124	951	26.91			181	1376	38.94
		125	810	22.92			182	1121	31.72
		126	675	19.10			183	934	26.43
		127	585	16.56		Sub-total		64948	1838.03
		128	495	14.01	1988	Dec.	184	1308	37.02
		129	360	10.19			185	2430	68.77
		130	423	11.97			186	5959	168.64
		131	432	12.23			187	3250	91.98
		132	243	6.88			188	2345	66.36
		133	225	6.37			189	1784	50.49
		134	135	3.82			190	1529	43.27
		135	90	2.55			191	1308	37.02
		136	405	11.46			192	1070	30.28
		137	405	11.46			193	900	25.47
1988	Sep.	138	495	14.01			194	855	24.20
		139	765	21.65			195	792	22.41
		140	702	19.87			196	720	20.38
	Sub-total		19349	647.58			197	684	19.36
1988	Oct.	141	720	20.38			198	666	18.85
		142	603	17.06			199	630	17.83
		143	468	13.24			200	567	16.05
		144	540	15.28			201	513	14.52
		145	495	14.01			202	468	13.24
		146	432	12.23			203	459	12.99
		147	252	7.13			204	450	12.74
		148	216	6.11			205	441	12.48
		149	90	2.55			206	423	11.97
		150	3	0.08			207	360	10.19
		151	315	8.91			208	315	8.91
		152	1121	31.72			209	270	7.64
		153	1036	29.32			210	216	6.11
		154	855	24.20			211	162	4.58
		155	666	18.85			212	90	2.55
		156	468	13.24			213	3	0.08
		157	450	12.74		Sub-total		30967	876.37
		158	405	11.46					

TABLE 5.2 LOWEST WATER LEVEL AT REPRESENTATIVE INTAKE SITES

Name of Intake	River	Bed F.L	Water depth (to operational LWL) <m>	Reduced (Lowest) W.L.	
				Design <m>	Operational <m>
Nami	Sg. Muda	46.35	2.85	49.10	49.10
Padang Cicak	Sg. Muda	46.82	0.98	47.90	47.10
Jeniang	Sg. Muda	20.85	1.55	22.40	(22.40)
Pantai Cicak	Sg. Muda	5.05	1.36	7.32	6.41
Sidam Kiri	Sg. Muda	2.17	1.00	4.00	3.17
Pinang Tunnga (Kulim)	Sg. Muda	-0.60	2.30	1.70	(1.70)
Bumbung Lima	Sg. Muda	-1.07	2.59	0.08	1.52
Pinang Tunnga	Sg. Muda	-1.14	2.67	2.74	1.52
Lahar Tiang 1	Sg. Muda	-0.61	2.74	1.37	1.37
Lahar Tiang 2	Sg. Muda	-1.83	1.52	1.37	1.37
Kota-II	Sg. Muda	-3.52	1.52	-1.00	-2.00
Tanjung Besan	Sg. Chepir	28.96	1.79	30.94	30.75
Batu Lima (Sik)	Sg. Chepir	?	?	25.55	(25.55)
Pulai	Sg. Ketil	47.73	1.95	49.68	49.68
Bikan	Sg. Sedim	21.10	3.05	24.15	24.15
Berban Pulan	Sg. Sedim	7.16	1.67	8.53	8.84

Note :The data of the other intakes are not obtained or data of LWL are not available

RIVER CORRIDOR PLAN

QUESTIONNAIRES

ON RIVER CORRIDOR PLAN FOR MUDA RIVER

(with reference numbers for preparation of summary)

JICA Study Team for Comprehensive Management Plan of Muda river basin will prepare a river corridor plan for Muda river as one of study items.

The river corridor is a belt zone along a river with the width of the river width plus approximately 10~100m, or more in accordance with the various site conditions, on the both river banks.

The definition of river corridor plan is not yet precisely prepared, however the major purposes of river corridor planning are considered as follows:

- (1) Environmental conservation
- (2) Enhancement of public utilization of river corridor

The river corridor plan will be prepared in consideration of future development of the areas along the river. If the appropriate plan is not prepared at present, it is probable that the river corridor area will be used for various purposes without environmental considerations and consequently become difficult to prepare an appropriate plan in the future. In other words, it will be too late to make a plan after the further development of the area.

The questionnaires are prepared to get comments/opinions on this matter from some offices/personnels more or less related to the plan.

The comments/ opinions will be reflected to a plan to be prepared by the JICA study team(River Environmental Management Planner). So please cooperate with the team in making a beautiful, clean and useful river corridor of Muda river.

Please prepare the answers to the following questionnaires.

Your name:

Category of your business/work:

Name of your office:

Your position & section:

Address/Location:

Q1 What kind of function do you expect to Muda river?
Please select from the following(no limit of selected numbers).

- 1.() Residential area of water front
- 2.() Forest/plant area reserve
- 3.() Conservation ecological system(Fauna & Flora)
- 4.() Recreation/Sport
- 5.() Water supply source
- 6.() Water power generation
- 7.() Sand mining
- 8.() Fishery
- 9.() Drainage
- 10.() Others()

Q2 What kind of activities do you think are preferable in Muda river?

Please select from the following(no limit of selected numbers).

- 1.() Navigation/Boat sailing
- 2.() Fishing
- 3.() Sport(swimming,football,athletics, etc.)
- 4.() Picnic/walking/resting
- 5.() Bird watching
- 6.() Playing/game
- 7.() Ecological observation
- 8.() others()

Q3 What kind of sports do you think will be popular by people to play in Muda river corridor areas?
Please select from the following(no limit of selected numbers).

- 1.() Football
- 2.() Baseball
- 3.() Swimming
- 4.() Running/Jogging
- 5.() Cycling
- 6.() Golf
- 7.() Boat /canoe
- 8.() others()

Q4 What kind of activities do you think are not desirable to be carried out in Muda river corridor areas?
Please select from the following(no limit of selected numbers).

- 1.() Sand mining
- 2.() Disposal of garbage/rubbish
- 3.() Logging
- 4.() Construction works(road,bridge,etc.)
- 5.() Building houses close to river stream
- 6.() others()

Q5 What do you think about sand mining in Muda river?
Please select one of the following.

- 1.() No objection against the sand mining activities
- 2.() No objection against the sand mining activities, if the contractor follow the regulation and guideline of the government
- 3.() Not desirable. The sand minning locations should be limited in some partial areas selected by the government with agreement of local people
- 4.() Sand mining should not be carried out in Muda river in any case
- 5.() Other comments(Please describe below)

Q6 What kind of effects/causes by sand mining would be serious/problem?

Please select from the following(no limit of selected numbers).

- 1.() River bank erosion
- 2.() Difficulty of pumping due to lowering of water level
- 3.() Unstable condition of riverside structures such as pumping station and bridge
- 4.() Unstable river flow due to irregular river cross section
- 5.() Adverse effects on ecology (fauna & flora)
- 6.() Undesirable landscape
- 7.() Danger at mining site
- 8.() others()

Q7 Do you know "Love River (Cintai Lah SungaiKita)"campaign by DID/JPS ?

Please select one of the following.

- 1.() Yes, I know.
- 2.() Yes, but I don't know the detail.
- 3.() No, I have never heard the name.

Q8 Muda river is not yet polluted at present according to DOE. Do you think Muda river is clean?
Please select one of the following.

- 1.() Very clean
- 2.() More or less clean
- 3.() More or less dirty
- 4.() Very dirty

Q9 There are some factories (rubber, oil palm, etc.) and livestock breeding farms(big, chicken, etc.) located nearby tributaries of Muda river.

The drainage water of factories is actually more or less polluted ,although each factory has treatment facilities(Settling basin etc.)and the water quality of tributary located downstream side of factory is gradually improved by dilution in the further downstream.

Do you think that the factories are considered as pollution sources of Muda river? Please select one of the following.

- 1.() Surely Yes.(pollution source)
- 2.() More or less ,Yes.
- 3.() More or less ,No.
- 4.() No.(not pollution source)

Q10 Which do you think is the most serious pollution source to water quality of Muda river?
Please select from the following(no limit of selected numbers).

- 1.() Rubber factories
- 2.() Oil-palm factories
- 3.() Timber processing factories
- 4.() Pig breeding farms
- 5.() Pumping stations
- 6.() Town/village(Drainage water)
- 7.() Disposal of garbage/rubbish
- 8.() Sand mining
- 9.() Others

Q11 Pedu resort with golf course and lodging facilities will be newly opened soon in front of Pedu reservoir which is located in the important natural forest with many wildlifes . The goverment has a plan to expand the resort area and possibly Muda dam reservoir area (with forest and wildlife at present) will also be developed in the near future.

What do you think about the development in the forest/wildlife area? Please select one of the following.

- 1.() Development is not allowed in any reason
- 2.() Development is allowed within the limit of areas and conditions decided by the government
- 3.() Development is allowed within the limit of areas and conditions if local people and environmental protection group(NGO) can agree with them
- 4.() Development is allowed for the economic development of the district without any imitation

Q12 Do you think that the river corridor plan for Muda river is necessary?
Please select one of the following.

- 1.() Yes, necessary.
- 2.() No, not necessary.
- 3.() Not sure to answer.

Q13 Do you think that many people will come to the river corridor zones with recreation/sport areas and riverside parks along Muda river, if constructed in the near future?

Please select one of the following.

- 1.() Yes, many people will come to use.
- 2.() Possibly used by only some people but not many
- 3.() No, only very few people will come.
- 4.() No idea to answer

In case of No for the above question, Why no?
Please select your reasons (no limit of selected numbers) and/or write down the other reasons,

- 1.() Malasia is too hot to enjoy outdoor activities.
- 2.() Muda river is located more or less far from populated towns.
- 3.() It is difficult to make desirable plan as the private lands are located generally too close to the river and the public area(government land) is limited.
- 4.() The area along Muda river has small potential f development in the future.
- 5.() Malaysian people are generally not interested in spending time in such places.
- 6.() The corridor areas have already no more valuable area to be reserved for environmental conservation.
- 7.() Other reason(please describe)

Q14 Please describe your comments below on the river corridor planning for Muda river and the tributaries.

**LIST OF AGENCIES
which answered to the Questionnaires
on River Corridor Plan**

No. 1

Name of person (who filled in the papers) : Muhd. Rachid Bin Wan Chik
 Category of work/speciality (of the person) :
 Name of Agency/Office : YOMART Environmental Systems SDN. BHD.
 Position/Section (of the person) : Project Manager
 Location/Address (of the agency) : 113, Tingkat 1, Kompleks Alor Setar, Lebuhraya Darulaman, 03100 Alor Setar

No. 2

Name of person (who filled in the papers) : Mohamad Shukri bin Ahmad Marzuki
 Category of work/speciality (of the person) :
 Name of Agency/Office : Department of Environment
 Position/Section (of the person) : Assistant Environmental Control Officer, Monitoring Section
 Location/Address (of the agency) :

No. 3

Name of person (who filled in the papers) : Tuan Haji Azini bin Ishak
 Category of work/speciality (of the person) : Town Planning Officer
 Name of Agency/Office : Jabatan Perancangan Bandar dan Desa
 Position/Section (of the person) : Pengurus Projek Unit Satu
 Location/Address (of the agency) : Tingkat 9, Menara SPPM, Jalan Telok Wanjah, 05646 Alor Setar, Kedah

No. 4

Name of person (who filled in the papers) : Roslan bin Rani
 Category of work/speciality (of the person) : Pegawai Urusan Hutan
 Name of Agency/Office : Jabatan Perhutanan Negeri Kedah
 Position/Section (of the person) : Unit Pengurusan Hutan
 Location/Address (of the agency) : Tingkat 8, Banguna Sultan Abdul Halim, 05000 Alor Setar, Kedah Darul Aman

No. 5

Name of person (who filled in the papers) : Sani Mohd. Isa
 Category of work/speciality (of the person) : Pegawai Perikanan
 Name of Agency/Office : Pejabat Perikanan Negeri Kedah/Perlis
 Position/Section (of the person) : Pegawai Perikanan
 Location/Address (of the agency) : Tingkat 5, Wisma Persekutuan, Alor Setar

No. 6

Name of person (who filled in the papers) : Tajuddin Hassan
 Category of work/speciality (of the person) : Jurutera Awam
 Name of Agency/Office : JKR Ibu Pejabat
 Position/Section (of the person) : Jurutera Awam
 Location/Address (of the agency) : Alor Setar

No. 7

Name of person (who filled in the papers) : Ishak bin Murat
 Category of work/speciality (of the person) : Pegawai Tadbir Negeri
 Name of Agency/Office : Pejabat Setiausaha Kerajaan Negeri
 Position/Section (of the person) : Penolong Pengarah Unit Perancang Ekonomi Negeri
 Location/Address (of the agency) : Aras 3, Blok B, Wisma Darul Aman, Jalan Tunku Bendahara 05250 Alor Setar

No. 8

Name of person (who filled in the papers) : Zamri b. Mahmood
 Category of work/speciality (of the person) :
 Name of Agency/Office : Perbadanan Kemajuan Negeri Kedah
 Position/Section (of the person) : Akauntan dan Perancangan Korporat
 Location/Address (of the agency) : Perbadanan Kemajuan Negeri Kedah Tingkat 14, Wisma PKNK, Jalan Sultan Badlishah, 05000 Alor Setar, Kedah

No. 9

Name of person (who filled in the papers) : Che Nor Che Ismail
 Category of work/speciality (of the person) : Timbalan Pengarah
 Name of Agency/Office : Jabatan Perlindungan Hidupan Liar dan Taman Negara, Negeri Kedah Darul Aman
 Position/Section (of the person) :
 Location/Address (of the agency) :

No. 10

Name of person (who filled in the papers) : Ir. Chin Joo Negan
 Category of work/speciality (of the person) : Civil Engineer
 Name of Agency/Office : Penang Development Corporation
 Position/Section (of the person) : -
 Location/Address (of the agency) : Penang

No. 11

Name of person (who filled in the papers) : Mohaman Jamil b. Hj. Ahmad
 Category of work/speciality (of the person) : Pengarah Perancang Bandar
 Name of Agency/Office : Jabatan Perancang Bandar & Desa Negeri Pulau Pinang
 Position/Section (of the person) : Pengarah
 Location/Address (of the agency) : Jabatan Perancang Bandar & Desa, Tingkat 19, KOMTAR, 10000 Pulau Pinang

No. 12

Name of person (who filled in the papers) : Mokhtar b. Mohd. JaitNil
 Category of work/speciality (of the person) : Penolong Pentadbir Tanah
 Name of Agency/Office : Pejabat Daerah dan Tanah, Seberang Perai Utara, Butterworth
 Position/Section (of the person) :
 Location/Address (of the agency) :

No. 13

Name of person (who filled in the papers) : Mahmad Nor b. Jaafar
 Category of work/speciality (of the person) : Agricultural Research
 Name of Agency/Office : MARDI
 Position/Section (of the person) : Senior Research Officer
 Agricultural Engineering Division
 Location/Address (of the agency) : Beg Berkunci No.203
 13200 Kepala Batas, S. Prai, Penang

No. 14

Name of person (who filled in the papers) : A'Ala bin Hamzah
 Category of work/speciality (of the person) :
 Name of Agency/Office : Pegawai Veterinar Daerah, Seberang Perai Utara
 Position/Section (of the person) :
 Location/Address (of the agency) : Pejabat Pekhidmatan Haiwan Daerah, Seberang Perai Utara
 Pokok Sena, Kepala Batas, Seberang Perai

No. 15

Name of person (who filled in the papers) : Jamel b. Abd. Hamid
 Category of work/speciality (of the person) : Penolong Pegawai Pertanian K/U
 Daerah S. Perai Utara
 Name of Agency/Office : Pejabat Pertanian Daerah Seberang Perai Utara

Position/Section (of the person) : Pegawai Pertanian Daerah
 Location/Address (of the agency) : Kompleks Pusat Pertanian
 Bumbong Lima, 13200 Kepala Batas

No. 16

Name of person (who filled in the papers) : Amir Taib
 Category of work/speciality (of the person) : Government Agency
 Name of Agency/Office : LKIM
 Position/Section (of the person) : Director
 Location/Address (of the agency) : Kompleks LKIM Batu Maung
 11960 Bayan Lepas, Pulau Pinang

No. 17

Name of person (who filled in the papers) : Kan Cheong Weng
 Category of work/speciality (of the person) : Jurutera Awam
 Name of Agency/Office : Pihak Berkuasa Air Pulau Pinang
 Position/Section (of the person) : Ketua Jurutera Kerja
 Location/Address (of the agency) : P.O. Box 246, 10730 Pulau Pinang
 Qr Lapisan 33, KOMTAR, 10000 Pulau Pinang

No. 18

Name of person (who filled in the papers) : Nil
 Category of work/speciality (of the person) :
 Name of Agency/Office : Pejabat Pengarah Tanah dan Galian,
 Pulau Pinang
 Position/Section (of the person) :
 Location/Address (of the agency) :

No. 19

Name of person (who filled in the papers) : Basuki b. Baharom
 Category of work/speciality (of the person) : Jurutera
 Name of Agency/Office : Jab. Kesihatan Kedah
 Position/Section (of the person) : Jurutera Kesihatan Umum
 Location/Address (of the agency) : Bangunan K.I.K.
 Kawasan Hospital, Alor Setar

No. 20

Name of person (who filled in the papers) : Mohd. Fathi bin Hj. Abdul Rahman
 Category of work/speciality (of the person) : Penolong Pengurus Perancang Bandar & Desa
 Name of Agency/Office : Perancang Bandar & Desa
 Position/Section (of the person) :
 Location/Address (of the agency) : Lembaga Kemajuan Wilayah Kedah (KEDA)

No. 21

Name of person (who filled in the papers) : Ir. Mohad. Azahar Don
 Category of work/speciality (of the person) : District Engineer
 Name of Agency/Office : Pejabat Jurutera Daerah, JKR
 Position/Section (of the person) : District Engineer
 Location/Address (of the agency) : Kuala Muda/Sik, Sungai Petani

No. 22

Name of person (who filled in the papers) : Azmi Mahmood
 Category of work/speciality (of the person) : Pegawai Pertanian Daerah
 Name of Agency/Office : Pejabat Pertanian Daerah Kuala Muda
 Position/Section (of the person) : Pegawai Pertanian
 Location/Address (of the agency) : Sungai Petani

No. 23

Name of person (who filled in the papers) : Mohd. Salleh b. Md. Hashim
 Category of work/speciality (of the person) : Pekerja Luar
 Name of Agency/Office : Pejabat Pertanian Kulim
 Position/Section (of the person) : Pembantu Pertanian Pengembangan
 Location/Address (of the agency) : Kulim

No. 24

Name of person (who filled in the papers) : Mahadi Latiff
 Category of work/speciality (of the person) : Engineer
 Name of Agency/Office : JKR KULIM
 Position/Section (of the person) : District Engineer
 Location/Address (of the agency) : Kulim

No. 25

Name of person (who filled in the papers) : Mohd. Hassan bin Abdullah
 Category of work/speciality (of the person) : Pembantu Teknik Air
 Name of Agency/Office : JKR Kulim, Bandar Baru, 09009 Kulim, Kedah Darulaman
 Position/Section (of the person) :
 Location/Address (of the agency) :

No. 26

Name of person (who filled in the papers) : Ir. Nase Abdul Ghani
 Category of work/speciality :

(of the person) : Jurutera
 Name of Agency/Office : Majlis Daerah, Kulim
 Position/Section (of the person) :
 Location/Address (of the agency) :

No. 27

Name of person (who filled in the papers) : Sridaran Arjunan
 Category of work/speciality (of the person) : Settlement Officer
 Name of Agency/Office : Land Office Kulim
 Position/Section (of the person) : Settlement Officer
 Location/Address (of the agency) : Pejabat Tanah, Kulim 09000 Kulim

No. 28

Name of person (who filled in the papers) : Mohamed bin Kassim
 Category of work/speciality (of the person) : Juruteknik
 Name of Agency/Office : JPS Kulim
 Position/Section (of the person) : Juruteknik
 Location/Address (of the agency) : JPS Kedah Selatan, Kulim, Kedah

No. 29

Name of person (who filled in the papers) : Abdul Halim bin Hassan
 Category of work/speciality (of the person) :
 Name of Agency/Office : Pejabat Tanah Kulim
 Position/Section (of the person) : Pentadbir Tanah
 Location/Address (of the agency) : Pejabat Tanah Kulim, 09000 Kulim

No. 30

Name of person (who filled in the papers) : Abbas bin Mohd. Jaafar
 Category of work/speciality (of the person) : Pegawai Petempatan
 Name of Agency/Office : Pejabat Tanah Kulim
 Position/Section (of the person) : N 7
 Location/Address (of the agency) : Pejabat Tanah Kulim

No. 31

Name of person (who filled in the papers) : Amiruddin b. Abd. Manaf
 Category of work/speciality (of the person) :
 Name of Agency/Office : Pejabat Tanah Kulim
 Position/Section (of the person) : Pembantu Tadbir N 9
 (Unit Pengambilan Bahan Batuan)
 Location/Address (of the agency) :

No. 32

Name of person (who filled in the papers) : Hamzah b. Ab. Halim
 Category of work/speciality (of the person) : Penolong Pegawai Perancang Bandar
 Name of Agency/Office : Majlis Daerah Kulim
 Position/Section (of the person) : Teknikal
 Location/Address (of the agency) : Majlis Daerah Kulim, 09000 Kulim

No. 33

Name of person (who filled in the papers) : Ilias Mohd. Hashim
 Category of work/speciality (of the person) : Pelukis Pelan
 Name of Agency/Office : JPS Kulim
 Position/Section (of the person) : Pelukis Pelan - Lukis
 Location/Address (of the agency) : JPS Kedah Selatan, kulim

No. 34

Name of person (who filled in the papers) : Abu Bakar bin Husain
 Category of work/speciality (of the person) : Pelukis Pelan
 Name of Agency/Office : JPS Kedah Selatan Kulim
 Position/Section (of the person) : Pelukis Pelan
 Location/Address (of the agency) : 3099. Lorong Selasih 1A/1
 Taman Selasih, Kulim

No. 35

Name of person (who filled in the papers) : Harun bin Abdul Hamid
 Category of work/speciality (of the person) : Jurutera Awam
 Name of Agency/Office : JKR Kulim/Bandar Baharu, Kedah
 Position/Section (of the person) : Bangunan
 Location/Address (of the agency) : JKR Kulim, 09000 Kulim, Kedah

No. 36

Name of person (who filled in the papers) : Tuan Mood b. Tuan Deraman
 Category of work/speciality (of the person) : Jurutera Jalan
 Name of Agency/Office : JKR Kulim/Bandar Baru
 Position/Section (of the person) :
 Location/Address (of the agency) :

No. 37

Name of person (who filled in the papers) : Romlah Hussain
 Category of work/speciality (of the person) : Pembantu Teknik

Name of Agency/Office : JKR Kulim/Bandar Baharu
 Position/Section (of the person) : Jalan
 Location/Address (of the agency) : JKR Kulim/Bandar Baharu

No. 38

Name of person (who filled in the papers) : Che Om L. Man
 Category of work/speciality (of the person) : Pegawai Pertanian
 Name of Agency/Office : Pejabat Pertanian Kulim
 Position/Section (of the person) : Pegawai Pertanian Daerah
 Location/Address (of the agency) : Kulim, Kedah

No. 39

Name of person (who filled in the papers) : Zainuddin bin Ahmad
 Category of work/speciality (of the person) : Pekerja Luar
 Name of Agency/Office : Pejabat Pertanian
 Position/Section (of the person) : Pembantu Pertanian, Pengembangan
 Location/Address (of the agency) : Kulim

No. 40

Name of person (who filled in the papers) : Ahmad bin Ali
 Category of work/speciality (of the person) : Bidang Pertanian
 Name of Agency/Office : Pejabat Pertanian Daerah
 09000 Kulim, Kedah
 Position/Section (of the person) : Pembantu Pertanian, Jabatan Pertanian
 Location/Address (of the agency) : Pejabat Pertanian Daerah,
 09000 Kulim, Kedah

No. 41

Name of person (who filled in the papers) : Kamariah Abdulla
 Category of work/speciality (of the person) : Pembantu Veterinar
 Name of Agency/Office : Pejabat Perkhidmatan Haiwan Daerah Kulim
 Position/Section (of the person) : Pembantu Veterinar/Rawatan Luar
 Location/Address (of the agency) : Pejabat Perkhidmatan Haiwan Daerah Kulim
 09000 Kulim, Kedah Darul Aman

No. 42

Name of person (who filled in the papers) : Ab. Razak b. Din
 Category of work/speciality (of the person) : Penolong Pegawai Veterinar
 Name of Agency/Office : Pejabat Perkhidmatan Haiwan
 Position/Section (of the person) : Daerah Kulim
 Location/Address (of the agency) : 09000 Kulim

No. 43

Name of person (who filled in the papers) : Ahmad Nazeri Aziz
 Category of work/speciality (of the person) : Jabatan Pertanian
 Name of Agency/Office : Pejabat Pertanian Daerah Sik
 Position/Section (of the person) : Penolong Pegawai Pertanian
 Location/Address (of the agency) : Pejabat Pertanian Daerah Sik
 08200 Sik, Kedah Darul Aman

No. 44

Name of person (who filled in the papers) : Yaakob Selamsuddin
 Category of work/speciality (of the person) : Perkhidmatan Veterinar
 Name of Agency/Office : Pejabat Perkhidmatan Haiwan Daerah
 Position/Section (of the person) : Pembantu Veterinar T/K Daerah
 Location/Address (of the agency) : Sik

No. 45

Name of person (who filled in the papers) : Loke Kok Yan
 Category of work/speciality (of the person) : Jorotera
 Name of Agency/Office : Bahagian Rejokoteraan Mada
 Position/Section (of the person) : Ketua Bahagian Resoduteraan
 Location/Address (of the agency) : IBU Pejabat Mada, Aupang Jatar

No. 46

Name of person (who filled in the papers) : Consumers Association of Penang
 Category of work/speciality (of the person) :
 Name of Agency/Office :
 Position/Section (of the person) :
 Location/Address (of the agency) : 228, Macalister Road, 10400 Penang

No. 47

Name of person (who filled in the papers) :
 Category of work/speciality (of the person) :
 Name of Agency/Office :
 Position/Section (of the person) :
 Location/Address (of the agency) : Pejabat Tanah ?

No. 48

Name of person (who filled in the papers) : Salim Bin Hassan
 Category of work/speciality (of the person) : Pegawai Pertanian

Name of Agency/Office : Pejabat Pertanian Baling
 Position/Section (of the person) : Pegawai Pertanian/Daerah
 Location/Address (of the agency) : Pejabat Pertanian Baling
 09100, Baling, Kedah

No. 49

Name of person (who filled in the papers) :
 Category of work/speciality (of the person) :
 Name of Agency/Office : Town Council Sungai Petani
 Position/Section (of the person) :
 Location/Address (of the agency) :

No. 50

Name of person (who filled in the papers) : Mohammed Ghazali b. Kassim
 Category of work /speciality (of the person) : Civil Engineer
 Name of Agency/Office : JKR Butterworth
 Position/Section (of the person) : Civil Engineer 1, Building
 Location/Address (of the agency) : JKR Butterworth, Pulau Pinang

No. 51

Name of person (who filled in the papers) : Mohd Nasir
 Category of work/speciality (of the person) : Engineer
 Name of Agency/Office : DID
 Position/Section (of the factory) : District Engineer
 Location/Address (of the agency) : Jalan Jerawat, Seberang Jaya, Penang.

No. 52

Name of person (who filled in the papers) : Razali bin. Haji Ahmad
 Category of work (of the person) : Town Planner
 Name of Agency/Office : Penang Regional Development Authority
 Position/Section (of the agency) : Town and Country & Planning Department
 Officer
 Location/Address (of the agency) : 27 -29, Jalan Selat, Taman Selat,
 12000 Butterworth.

No. 53

Name of person (who filled in the papers) : Ahyaudin B. Ali, Ph.D.
 Category of work/speciality (of the person) : Associate Profesor
 Name of Agency/Office : School of Biological Sciences, USM, Penang.
 Position/section (of the person) : Associate Profesor
 Location/Address (of the agency) : School of Biological Sciences,
 Univ. Sains Malaysia, 11800 Minden, Penang.

Table Summary of Answer to Questionnaires for River Corridor Plan

Que. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	Sub-Total
O1														
1							*							1
2	*	*		*					*	*	*			6
3	*	*	*	*	*		*	*	*	*	*		*	11
4	*		*	*	*	*	*	*		*	*	*		9
5	*	*	*	*	*	*	*	*		*	*	*	*	12
6		*	*					*					*	5
7												*		1
8	*	*	*	*	*	*	*					*		8
9			*	*	*	*	*					*	*	7
10		*												1
O2														
1		*	*											2
2	*		*	*	*	*	*	*		*	*	*	*	11
3			*	*	*	*	*	*		*	*	*	*	3
4	*	*	*	*	*	*	*	*		*	*	*	*	11
5		*	*	*	*	*	*	*	*	*	*	*	*	6
6											*			1
7	*	*	*	*	*	*	*	*	*	*	*	*	*	12
8														0
O3														
1					*									1
2														0
3					*				*		*			3
4	*	*	*	*	*	*	*	*	*	*	*	*	*	11
5		*	*	*	*	*	*	*	*	*	*	*	*	6
6		*						*						2
7	*	*	*	*	*	*	*	*	*	*	*	*	*	12
8		*												1
O4														
1	*	*	*	*	*	*	*	*	*	*	*	*	*	10
2	*	*	*	*	*	*	*	*	*	*	*	*	*	13
3	*	*	*	*	*	*	*	*	*	*	*	*	*	10
4			*	*						*	*	*	*	3
5	*	*	*	*	*	*	*	*	*	*	*	*	*	9
6		*				*				*	*	*	*	2
O5														
1														0
2	*						*	*				*	*	5
3			*	*	*	*				*	*			6
4		*			*				*					3
5		*	*											2
O6														
1	*	*	*	*	*	*	*	*	*	*	*	*	*	13
2	*	*	*	*	*	*	*	*	*	*	*	*	*	3
3	*		*	*	*	*	*	*	*	*	*	*	*	6
4	*	*	*	*	*	*	*	*	*	*	*	*	*	10
5		*	*	*	*	*	*	*	*	*	*	*	*	9
6	*	*	*	*	*	*	*	*	*	*	*	*	*	10
7			*	*	*	*	*	*	*	*	*	*	*	5
8		*			*							*	*	2
O7														
1	*	*	*	*	*	*	*	*	*	*	*	*	*	9
2			*		*	*	*	*	*	*	*	*	*	4
3														0
O8														
1														0
2	*	*	*	*	*	*	*	*	*	*	*	*	*	10
3			*	*	*	*	*	*	*	*	*	*	*	2
4														0

Table Summary of Answer to Questionnaires for River Corridor Plan

Que. No.	14	15	16	17	18	19	20	21	22	23	24	25	26	Sub-Total
O1														
1										*			*	2
2				*		*	*	*	*			*		6
3	*	*	*	*	*	*	*	*	*	*		*		11
4	*		*			*	*	*	*	*	*	*	*	8
5	*	*	*	*		*	*	*	*	*	*	*	*	11
6						*	*	*						3
7					*									1
8	*		*	*		*				*				5
9	*		*	*		*	*				*			6
10														0
O2														
1			*			*						*		3
2	*		*	*		*		*	*	*	*	*	*	9
3										*	*			0
4	*	*	*	*		*	*	*	*	*	*	*	*	12
5						*	*	*	*	*	*	*	*	3
6														0
7	*	*	*	*		*	*	*	*	*	*	*	*	9
8														0
O3													*	1
1													*	0
2														0
3			*	*		*		*	*	*	*	*	*	5
4		*	*	*	*	*	*	*	*	*	*	*	*	12
5			*	*	*	*	*	*	*	*	*	*	*	8
6														0
7	*	*	*	*		*	*	*	*	*	*	*	*	11
8														0
O4														
1	*	*	*		*	*	*	*	*	*	*	*	*	10
2	*	*	*	*	*	*	*	*	*	*	*	*	*	12
3	*	*	*	*	*	*	*	*	*	*	*	*	*	10
4					*	*	*	*	*	*	*	*	*	3
5			*	*	*	*	*	*	*	*	*	*	*	8
6				*										1
O5														
1											*			0
2			*	*		*		*	*	*	*	*	*	2
3			*	*		*		*	*	*	*	*	*	7
4	*	*				*		*	*	*	*	*	*	4
5														0
O6														
1	*	*	*		*	*	*	*	*	*	*	*	*	12
2					*	*	*	*	*	*	*	*	*	5
3	*		*	*		*	*	*	*	*	*	*	*	8
4		*	*		*	*	*	*	*	*	*	*	*	6
5		*	*		*	*	*	*	*	*	*	*	*	8
6		*	*		*	*	*	*	*	*	*	*	*	8
7	*	*	*		*	*	*	*	*	*	*	*	*	8
8		*	*		*	*	*	*	*	*	*	*	*	4
O7														
1	*	*	*	*		*	*	*	*	*	*	*	*	12
2					*	*	*	*	*	*	*	*	*	2
3														0
O8														
1														0
2	*	*	*	*		*	*	*	*	*	*	*	*	11
3						*	*	*	*	*	*	*	*	1
4														0

Table Summary of Answer to Questionnaires for River Corridor Plan

Que. No.	27	28	29	30	31	32	33	34	35	36	37	38	39	Sub-Total
O1														
1							*							1
2		*				*		*						3
3		*	*		*	*		*	*	*	*	*	*	9
4	*	*	*		*	*		*	*	*	*	*	*	10
5	*	*		*		*		*	*	*	*	*	*	9
6						*		*				*		2
7	*		*		*	*		*	*	*	*	*	*	5
8	*		*		*	*		*	*	*	*	*	*	7
9	*	*	*		*	*		*	*	*	*	*	*	9
10								*						1
O2														
1	*		*			*		*	*	*	*	*	*	4
2	*	*	*		*	*	*	*	*	*	*	*	*	12
3								*	*	*	*	*	*	3
4	*	*	*		*	*		*	*	*	*	*	*	11
5	*				*	*		*	*	*	*	*	*	5
6						*		*	*	*	*	*	*	3
7	*	*	*		*	*		*	*	*	*	*	*	8
8			*		*	*		*	*	*	*	*	*	2
O3														
1														0
2	*												*	1
3	*							*	*	*	*	*	*	6
4	*	*	*		*	*	*	*	*	*	*	*	*	11
5					*	*	*	*	*	*	*	*	*	3
6							*	*	*	*	*	*	*	1
7	*	*	*		*	*	*	*	*	*	*	*	*	11
8					*	*		*	*	*	*	*	*	2
O4														
1	*	*	*		*	*	*	*	*	*	*	*	*	8
2	*	*	*	*	*	*	*	*	*	*	*	*	*	13
3	*	*	*	*	*	*	*	*	*	*	*	*	*	12
4					*	*	*	*	*	*	*	*	*	1
5	*	*	*		*	*	*	*	*	*	*	*	*	11
6		*	*		*	*	*	*	*	*	*	*	*	4
O5														
1													*	0
2	*						*	*	*	*	*	*	*	3
3			*	*		*		*	*	*	*	*	*	8
4		*						*	*	*	*	*	*	2
5													*	0
O6														
1	1	1	1	1	1	1	1	1	1	1	1	1	1	13
2		1	1	1	1	1	1	1	1	1	1	1	1	7
3	1	1	1	1	1	1	1	1	1	1	1	1	1	10
4	1	1	1	1	1	1	1	1	1	1	1	1	1	7
5		1	1	1	1	1	1	1	1	1	1	1	1	8
6	1	1	1	1	1	1	1	1	1	1	1	1	1	10
7		1	1	1	1	1	1	1	1	1	1	1	1	7
8		1	1	1	1	1	1	1	1	1	1	1	1	3
O7														
1	*	*	*	*		*	*	*	*	*	*	*	*	10
2					*	*	*	*	*	*	*	*	*	3
3														0
O8														
1														0
2	*	*	*	*		*	*	*	*	*	*	*	*	9
3						*	*	*	*	*	*	*	*	4
4														0

Docu. 6.3 ④

Table Summary of Answer to Questionnaires for River Corridor Plan

Que. No.	40	41	42	43	44	45	46	47	48			Sub-Total	Total
O1													
1								*				1	5
2	*			*	*	*	*					5	20
3			*	*	*	*	*		*			6	37
4	*		*	*	*	*	*		*			5	32
5	*		*	*	*	*	*		*			7	39
6			*	*	*	*	*					3	13
7						*	*					1	8
8	*		*	*	*	*	*		*			6	26
9	*	*	*	*	*	*	*	*	*			7	29
10												0	2
O2													
1	*			*								2	11
2	*		*	*	*	*	*	*	*			8	40
3			*	*	*	*	*					2	8
4	*	*	*	*	*	*	*					7	41
5	*		*	*	*	*	*					6	20
6			*	*	*	*	*					1	5
7	*		*	*	*	*	*	*	*			8	37
8				*								1	3
O3													
1												0	2
2												0	1
3	*		*	*	*	*	*					4	18
4	*		*	*	*	*	*	*				6	40
5	*		*	*	*	*	*					4	21
6			*	*	*	*	*					1	4
7	*	*	*	*	*	*	*	*	*			8	42
8				*								1	4
O4													
1	*		*	*	*	*	*					4	32
2	*	*	*	*	*	*	*	*	*			9	47
3			*	*	*	*	*					5	37
4				*	*	*	*	*	*			0	7
5			*	*	*	*	*	*	*			6	34
6				*	*	*	*	*	*			0	7
O5													
1												0	0
2			*		*			*	*			4	14
3		*		*	*							2	23
4	*		*	*	*	*	*					3	12
5												0	2
O6													
1	*	*	*	*	*	*	*	*	*			9	47
2			*	*	*	*	*					2	17
3			*	*	*	*	*	*	*			3	27
4			*	*	*	*	*	*	*			5	28
5	*		*	*	*	*	*	*	*			4	29
6	*		*	*	*	*	*	*	*	*		6	34
7			*	*	*	*	*	*	*			3	23
8			*	*	*	*	*	*	*			1	10
O7													
1			*	*	*	*	*	*	*			4	35
2	*	*	*	*	*	*	*	*	*			5	14
3												0	0
O8													
1												0	0
2	*	*	*	*	*	*	*	*	*			6	36
3		*	*	*	*	*	*	*	*			3	10
4									*			0	0

Docu. 6.3 ⑤

Table Summary of Answer to Questionnaires for River Corridor Plan

Que. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	Sub-Total
O9														
1	*	*	*						*	*			*	6
2				*	*	*		*	*					5
3												*		1
4														0
O10														
1	*	*	*	*	*	*		*	*	*	*		*	10
2	*			*	*	*				*	*			4
3			*	*	*	*		*	*	*	*			5
4	*		*	*	*	*		*	*	*	*	*	*	9
5			*	*	*	*								1
6	*	*	*	*	*	*		*	*	*	*	*	*	7
7	*	*	*	*	*	*		*	*	*	*	*	*	10
8	*	*	*	*	*	*		*	*	*	*	*	*	7
9		*	*	*	*	*		*	*	*	*	*	*	4
O11														
1														0
2	*	*	*	*	*	*		*	*	*	*	*	*	9
3			*	*	*	*		*	*	*	*	*	*	2
4								*	*	*	*	*	*	1
O12														
1	*	*	*	*	*	*		*	*	*	*	*	*	5
2														0
3														0
O13														
1	*	*	*	*	*	*	*	*	*	*	*	*	*	10
2					*	*	*	*	*	*	*	*	*	2
3											*	*	*	0
4											*	*	*	1
O13(A)														
1														0
2														0
3						*	*	*	*	*	*	*	*	2
4											*	*	*	0
5														0
6														0
7											*	*	*	1
O14	*	*	*	*	*	*	*	*	*	*	*	*	*	11

Docu. 6.3 (6)

Table Summary of Answer to Questionnaires for River Corridor Plan

Que. No.	14	15	16	17	18	19	20	21	22	23	24	25	26	Sub-Total
Q9														
1			*				*	*	*		*	*	*	7
2	*	*		*	*					*				5
3						*								1
4														1
Q10														
1	*	*	*				*			*	*	*	*	7
2	*	*	*				*			*	*	*	*	7
3	*	*	*				*	*	*	*	*	*	*	5
4		*	*	*		*	*	*	*	*	*	*	*	11
5														0
6			*	*		*	*	*	*	*	*	*	*	6
7	*	*	*	*		*	*	*	*	*	*	*	*	10
8									*	*				2
9								*	*					2
Q11														
1				*		*								2
2	*				*			*	*	*	*	*	*	6
3		*	*				*	*	*	*	*	*	*	5
4														0
Q12														
1			*	*			*	*	*	*	*	*	*	7
2														0
3														0
Q13														
1	*	*	*			*	*	*	*	*	*	*	*	9
2		*		*										2
3														0
4					*					*				2
Q13(A)														
1														0
2				*						*				2
3		*												1
4														0
5		*		*										2
6														0
7				*										1
Q14	*	*	*	*	*	*	*	*	*	*	*	*	*	10

Docu. 6.3 (7)

Table Summary of Answer to Questionnaires for River Corridor Plan

Que. No.	27	28	29	30	31	32	33	34	35	36	37	38	39	Sub-Total
Q9														
1			*			*	*		*	*				5
2	*	*			*		*	*			*	*	*	7
3														0
4				*										1
Q10														
1	*	*	*	*		*	*	*	*	*	*	*	*	12
2	*	*	*	*	*	*	*	*	*	*	*	*	*	13
3	*	*	*	*		*	*	*	*	*	*	*	*	9
4	*	*	*		*	*	*	*	*	*	*	*	*	12
5									*	*	*	*	*	2
6									*	*	*	*	*	3
7	*	*		*			*	*	*	*	*	*	*	9
8		*		*		*	*	*	*	*	*	*	*	9
9									*					1
Q11														
1														0
2			*				*	*	*	*	*	*	*	6
3	*	*				*	*	*	*	*	*	*	*	5
4				*	*						*			3
Q12														
1	*													1
2														0
3														0
Q13														
1	*	*	*			*	*	*	*	*	*	*	*	12
2														0
3														0
4							*							1
Q13(A)														
1														0
2														0
3				*										1
4				*										1
5				*										1
6														0
7														0
Q14	*	*	*	*	*	*	*	*	*	*	*	*	*	10

Table Summary of Answer to Questionnaires for River Corridor Plan

Que. No.	40	41	42	43	44	45	46	47	48			Sub-Total	Total
Q9													
1	*		*	*	*		*					5	23
2		*				*		*	*			4	21
3												0	2
4												0	2
Q10													
1	*		*	*	*	*	*	*				7	36
2	*		*	*	*	*	*	*				7	31
3			*	*	*	*	*	*				5	24
4	*		*	*	*	*	*	*	*			7	39
5									*			0	3
6				*		*	*		*			4	20
7	*	*		*		*	*		*			6	35
8							*					1	19
9												0	7
Q11													
1							*					1	3
2	*	*				*		*	*			5	26
3			*	*	*							3	15
4												0	4
Q12													
1							*	*				2	15
2												0	0
3												0	0
Q13													
1	*	*	*	*	*		*	*	*			7	38
2							*					1	5
3						*						1	1
4												0	4
Q13(A)													
1												0	0
2												0	2
3												0	4
4												0	1
5												0	3
6												0	0
7												0	2
Q14	*	*	*	*	*	*			*			7	38

Note : Agencies No. 49 ~ No.53 are not included in this summary, but their answers are taken into account for the planning.

SUMMARY OF ANSWERS TO QUESTIONNAIRES FOR RIVER CORRIDOR PLAN (2) (Written Answers)

Q1 What kind of function do you expect to Muda river? Please select from the following(no limit of selected numbers).

Agent No. 2 :

Navigation , Fishing port at river mouth.

Agent No. 35 :

Sand mining needs to be stopped immediately.

Q2 What kind of activities do you think are preferable in Muda river? Please select from the following(no limit of selected numbers).

Agent No. 30 :

There are no attractive locations.

Agent No. 35 :

Canoe

Agent No. 44 :

Water sports using raft and canoe.

Q3 What kind of sports do you think will be popular by people to play in Muda river corridor areas? Please select from the following(no limit of selected numbers).

Agent No. 2 :

Hunting , Sport Fishing.

Agent No. 30 :

Area not wide enough and level of water is not constant.

Agent No. 35 :

Treasure hunt, fishing

Q4 What kind of activities do you think are not desirable to be carried out in Muda river corridor areas? Please select from the following(no limit of selected numbers).

Agent No. 2:

Any undesirable development within the setback limit.

Agent No. 6:

Industry

Agent No. 17:

Industrialization, rearing of animals (pigs).

Agent No. 28:

Diversion from the river.

Agent No. 35:

Golf course.

Agent No. 36:

Construction of roads and bridges need carefull planning.

Q5 What do you think about sand mining in Muda river?
Please select one of the following.

Agent No. 2:

Sand mining will cause detrioration in the water quality (suspended solids) if done without proper playing and control. Since several water intake stations were located at the Muda river, sand mining should be avoided.

Agent No. 3:

Restricted to specific areas with emphasis on environmental preservation.

Q6 What kind of effects/causes by sand mining would be serious/problem?
Please select from the following(no limit of selected numbers).

Agent No. 2:

Water pollution-Suspended solid.

Agent No. 12:

Lowers the water quality (resulting in muddy waters).

Agent No. 15:

Disturb the surrounding areas through the transportation activities, e.g. the road is damaged and dusty and may be dagerous for the local people.

Agent No. 17:

Will damage the pump if the sand gets into the pump house.

Agent No. 18:

The roads that are used to carry sand will become dirty.

Agent No. 22:

The approach at the river side is always damaged.

Agent No. 28:

Natural habitations of river life will be destroyed.

Agent No. 36:

Destroy the road system in the Muda River corridor which needs intensive maintenance.

Agent No. 37:

Destruction of the surrounding roads and also speeding vehicles are very dangerous to the local people especially to school children.

Agent No. 43:

Level of the river will decrease
This will cause the water level in the land to decrease also.
This will affect badly agriculture especially during the dry season.

Q10 Which do you think is the most serious pollution source to water quality of Muda river?
Please select from the following(no limit of selected numbers).

Agent No. 2:

Domestic Sewage.

Agent No. 6:

Silting from Construction Site & Logging

Agent No. 10:

Not a serious pollution provided
Proper sewage treatment installed

Agent No. 12:

The water quality in Muda River is not very polluted except in clarity level only.

Agent No. 21:

I don't know about the by-products of factories.

Agent No. 22:

Logging at the upper end of the river.

Agent No. 35:

Weed killers (pesticides) at the beginning of the river.

Q13 Do you think that many people will come to the river corridor zones with recreation/sport areas and riverside parks along Muda river, if constructed in the near future?

In case of No for the above question, Why no?
Please select your reasons (no limit of selected numbers) and/or write down the other reasons,

Agent No. 12:

It depends on the power of attraction from the recreational and sports area and the exposure/advertisement to the public.

Agent No. 17:

There are other recreational areas already.

Q14 Please describe your comments below on the river corridor planning for Muda river and the tributaries.

Agent No. 1:

The river corridor will be a benefit to the locals as well as the state in terms of environmental conservation. It will provide areas for recreation as well as outdoor activities.

Agent No. 2:

By having river corridor will increase the aesthetic value of the river. Hopefully this will make people understand more about the beneficial function of river.

Agent No. 3:

- * This area is to be free from any development.
- * Environmental characteristics need to be maintained and/or improved.
- * Only passive recreational activities are allowed.
- * The concept of sustainable development and environmental friendly development need to inculcated.
- * Development guidelines for this area as specified in the Local Plan need to be followed.

Agent No. 4:

Corridor Plan at Muda river must carry out with a detail management planning and create an "Action Community" to make a development. An early study should be carried out to ensure that the planing is meaningful

and useful to the all consumers. It not only limit to the villager around but also be to development of tourism.

Agent No. 6:

Agree and need to carry out.

Agent No. 7:

The aim of corridor development at Muda river is to achieve optimum development with the aspect of social economy and the usage of natural source. At the same time, preserve and upgrade the environment should be maintain to suit with the continuous development concept (sustainable development). In addition, various project can be improve in the area with condition that should not conflict with the development concept that was fixed. The main potential area is water source and ecotourism development.

Agent No. 8:

Proper planning should be carried out in conjunction with concepts of natural(green). Natural environment along Muda river corridor should preserved for recreation and also to attract the tourist.

Agent No. 9:

In carry out the development of corridor, proper planning should be carried out and take account ecology environment, water quality and future social economy of local people.

Agent No. 11:

Penang Town and Country Planning Department fully supports the River Corridor Planning in the Muda River and its tributaries.

An early study of the River corridor should have been carried out from the very beginning for all the important rivers in the state of Penang.

Agent No. 12:

The planning of the river corridor is very much welcomed because it will ascertain the potentials and problems in the formation of a plan for control and development. Also raising the awareness of the Muda River as a water resource.

Agent No. 13:

Some suitable area may be develop for recreational purpose but without jeopardizing the general function of a river. Most of the ? area should be protected to ensure a "living river". Economic necessity must be balanced with rational environmental protection/conservation.

Agent No. 14:

A very good suggestion for it has been observed that there is a lack of recreational areas in Seberang Perai and thus this new suggestion will give rise to more recreational areas. At this moment, the people in Pulau Pinang

are forced to go to other states with their families to have a rest and enjoy the beauty of nature.

Agent No. 15:

It is better that the Muda River is maintained as the main water resource for farming and domestic purposes. This area must never be developed so that the river's general function as a water resource is not jeopardized.

Agent No. 16:

Quite necessary, because it would provide planned development strategies and action plans which if properly implemented would ensure proper usage of Muda River. Otherwise, un-? people will plunder its riches purely for monetary benefit regardless of damages and after effects for future generations.

Agent No. 17:

This seems a good step in the direction of controlling pollution in the Muda River. Anything that passes or uses this corridor must adhere to the conditions that are laid down for this corridor.

Agent No. 18:

Sand mining of the Muda River is allowed by the state authorities according to the stipulated conditions. One of the condition is that the permit holders must take care of the river banks in the area concerned to avoid the incidence of collapse and the permit holder will be liable if any pollution occur. Therefore any planning for the development of the river corridor must take this activity into consideration.

Agent No. 19:

The planning for the river corridor should not disturb the ecology and natural elements.

Agent No. 21:

The idea of a river corridor plan for Muda River is very much welcome. It should be well and properly orchestrated so as to cause the least disturbance and inconvenience to the local village folks and also detriment to the natural environment in addition that it should not be taken advantage of by certain guests of people in the name of development and so forth.

Agent No. 22:

The planning is very important because Muda River is the very heart beat of the state of Kedah. Muda River will become dirty if the corridor is dirty.

Agent No. 23:

No comment

Agent No. 25:

Good

Agent No. 27:

1. River corridor Plan is essential and would be widely utilized similar to the beach front areas in our country
2. The local council will further develop and maintain the river corridor along with other government agencies.
3. Helps to reduce squatter problems
4. The government will have to acquire land along the river so that development can be carried out without the landowners interferences and gazette them as river corridor.

Agent No. 28:

Make sure that the development and any other related activities in the areas surrounding the river does not endanger the stability of the river which is already fifty percent (50%) damaged.

Agent No. 29:

1. Ensure the Muda River as the major water resource for the agricultural and surrounding areas.
2. To avoid erosion of the river bank, Muda River needs to be straightened at places where there is interference in the water flow.

Agent No. 31:

River corridor planning in Muda River and its tributaries needs to take into consideration the effects and to local people especially the squatters in the river reserve. Relocation of the squatters in a proper manner should be given priority.

Agent No. 32:

Any planning/works that touches the river area should be facing the river. Activities using the land such as industry, dumping ground for waste products should never ever be allowed (including the rearing of animals).

Agent No. 33:

I feel this is very good.

Agent No. 34:

River corridor planning in the Muda River is good and beneficial if it becomes a reality. Besides making the river area beautiful, it can also become a recreational area for the local people and also to prevent young people from a wayward life.

This planning needs big capital (money) and I am worried it may be just a dream only.

Agent No. 36:

River corridor planning of Muda River is very good if natural environmental factors are taken into account. Proper planning should be carried out carefully.

Agent No. 37:

1. Needs to have recreational areas and the safety of the local people needs to be considered.
2. Steps should be taken to ensure that the sand mining area is placed at a distance from populated areas and also needs to follow the existing guidelines.
3. Landscaping needs to be added and the cleanliness of the river should be constantly free from rubbish.

Agent No. 38:

Planning to prevent the spread of pollution is very good indeed. There should be laws to penalize the public who pollutes the river so that the cleanliness of the Muda River is guaranteed forever.

Agent No. 40:

Corridor planning of the Muda River should be focused on the construction of barricades to prevent erosion and beautify the surrounding areas of the river bank. Increase efforts should be carried out to promote activities such as having outdoor yearly Muda River run and others.

Agent No. 41:

Corridor river planning of the Muda River and its tributaries is very much welcomed because with the above planning the condition of the river will be conserved and free from pollution and the beauty of the river can be fully appreciated so that the clean environment can be preserved for the future generation.

Agent No. 42:

Should be carefully preserved according to ecology, environment and Gods creation. Pollution should be avoided hundred percent (100%).

Agent No. 43:

Corridor planning of Muda River is good and needs to be carried out. My opinion is the Muda River corridor should be carried out systematically together with agriculture plantation especially durian which has shown much compatibility. With the development of plantation farming systematically, tourist activity to the plantations will be created and in the course of it other related activities will develop.

Agent No. 44:

Corridor planning will create more areas for recreation and sports. The development of the area will expand and also encourage economical development of the surrounding areas.

Agent No. 45:

The corridor plan for Muda River is suitable at certain place only. So that, the area in city or town must take first for the beautification.

Agent No. 48:

River Corridor Planning for Sg. Muda must be carried out as a package of project development and recreational center which are not different each other. The visitor want to come to see the both.

Agent 49:

Proper planning will enhance the image of river for cleanliness and environment. good landscape planning and provision of related facilities will induce a beautiful recreation areas.

Agent 50

I agree to proposed on river corridor development as a recreation on area especially to serve Seberang Prai Utara area. At present such facilities is lacking in this area.

Agent 51

At present, there is no proposal to exploit the economic potential of the Muda River. However, it should not cause adverse effect on its environmental.

Agent 52

The love our river campaign and enforcement to be revamp.

Agent 53

Proper planning and management of the corridor must be initiated quickly. River being the source of domestic water as well as providing food and recreational resources to the public should be protected. The cost of putting of proper planning and management to future date could be very high, socially, ecologically and economically.

**SOALAN KAJI SELIDIK
MENGENAI PERANCANGAN KORIDOR SUNGAI DI SUNGAI MUDA**

JICA Study Team (Comprehensive Management Plan of Muda river basin) akan menyediakan satu perancangan koridor sungai di sungai Muda sebagai salah satu daripada kajian mereka.

Koridor sungai adalah rezab tebing sepanjang sungai dengan lebar sungai campur lebar tebing di antara 10~100m, atau lebih mengikut keadaan jenis tapak di kedua-dua belah tebing sungai.

Definisi bagi perancangan koridor sungai belumlah lagi disiapkan dengan sempurna. Walau bagaimanapun tujuan utama perancangan koridor sungai adalah seperti berikut :

- (1) Pemeliharaan alam sekitar
- (2) Peninggian penggunaan awam ke atas koridor sungai

Perancangan koridor sungai akan disediakan dengan mengambil kira pembangunan di masa depan di kawasan sepanjang sungai. Sekiranya perancangan yang sesuai tidak dapat disediakan untuk masa ini maka kemungkinan kawasan koridor sungai akan digunakan untuk tujuan tertentu tanpa melibatkan pemeliharaan alam sekitar. Akhirnya menjadi sukar untuk menyediakan perancangan yang sesuai di masa akan datang. Dengan kata lain, adalah terlalu lewat untuk menyediakan perancangan selepas pembangunan seterusnya dilaksanakan di kawasan tersebut.

Soalan kaji selidik disediakan untuk mendapat ulasan-ulasan / pendapat-pendapat di atas pekara ini daripada jabatan-jabatan / individu-individu yang berkaitan dengan perancangan ini

Ulasan-ulasan / pendapat-pendapat akan mencerminkan perancangan yang akan disediakan oleh JICA study team (River Environmental Management Planner). Oleh yang demikian kerjasama daripada semua pihak amat dihargai untuk mengindahkan, membersihkan serta memberi faedah ke atas koridor sungai di sungai Muda.

ARAHAN : Sila tandakan (/) untuk jawapan pilihan anda serta isikan jawapan untuk setiap soalan-soalan berikut.

Nama :

Jenis pekerjaan:

Nama pejabat:

Jawatan dan Bahagian:

Alamat / Lokasi:

S1. Apakah jenis fungsi / peranan yang anda harapkan dari sungai Muda ?
(Tiada had jawapan)

- () Kawasan kediaman
- () Kawasan hutan simpanan
- () Pemeliharaan sistem ekologi
- () Rekreasi / Bersukan
- () Sumber bekalan air
- () Penjanaan kuasa air
- () Perlombongan pasir
- () Perikanan
- () Saliran
- () Lain-lain (nyatakan)

S2. Apakah aktiviti yang sesuai dijalankan di Sungai Muda ?
(Tiada had jawapan)

- () Pelayaran / Kapal layar
- () Memancing
- () Bersukan (berenang, bolasepak, athlit, dll.)
- () Berkelah / Bersiar-siar / Berehat
- () Pemerhatian burung
- () Permainan
- () Pemerhatian ekologi
- () Lain-lain (nyatakan)

Q3. Apakah jenis sukan yang akan popular sekiranya dimainkan di kawasan koridor sungai Muda ?

(Tiada had jawapan)

- Bolasepak
- Baseball
- Renang
- Larian / Jogging
- Berbasikal
- Golf
- Perahu / Berkenu
- Lain-lain (nyatakan)

Q4. Apakah aktiviti yang tidak sesuai dijalankan di kawasan koridor sungai Muda ?

(Tiada had jawapan)

- Perlombongan pasir
- Pembuangan sampah / kotoran
- Pembalakan
- Kerja pembinaan (jalan, jambatan,dll.)
- Membina rumah berdekatan dengan sungai
- Lain-lain (nyatakan)

Q5. Apakah yang kamu fikirkan mengenai perlombongan pasir di sungai Muda ?

(Hanya pilih satu jawapan sahaja)

- Tiada bantahan ke atas aktiviti perlombongan pasir
- Tiada bantahan ke atas aktiviti perlombongan pasir, sekiranya kontraktor mengikut peraturan dan garis panduan kerajaan
- Tidak perlu. Kawasan perlombongan pasir mesti dihadkan kepada kawasan umum yang dipilih oleh kerajaan mengikut persetujuan dengan penduduk tempatan
- Perlombongan pasir tidak patut dijalankan di sungai Muda dalam sebarang kes
- Lain-lain komen (nyatakan)

Q6. Apakah jenis kesan / kerosakan yang disebabkan oleh perlombongan pasir ?

(Tiada had jawapan)

- Hakisan tebing sungai
- Kesukaran untuk mengepam disebabkan paras air rendah
- Keadaan tidak stabil terhadap pembinaan tepi sungai seperti rumah pam dan jambatan
- Kesan pertentangan dalam ekologi (fauna & flora)
- Landskap tercemar
- Merbahaya kepada perlombongan
- Lain-lain (nyatakan)

Q7. Adakah anda mengetahui " Cintailah Sungai Kita " yang dianjurkan oleh JPS ?

(Hanya pilih satu jawapan sahaja)

- Ya, saya tahu
- Ya, tapi tidak mengetahui dengan lengkap
- Tidak, saya tidak pernah mendengarnya

Q8. Mengikut DOE, sungai Muda masih belum tercemar dewasa ini. Pada pendapat anda, adakah sungai Muda bersih ?

(Hanya pilih satu jawapan sahaja)

- Sangat bersih
- Bersih
- Kotor
- Sangat kotor

Q9. Berhampiran anak-anak sungai Muda terletak beberapa kilang (getah ,kelapa, sawit dll.) dan ladang tenakan (khinzir, ayam dll.). Saliran air dari kilang sebenarnya tercemar walaupun setiap kilang mempunyai alat penapisan. Kualiti air dari kilang di sebelah hilir secara berperingkat bertambah baik apabila bercampur dengan air dari anak-anak sungai Muda. Pada pandangan anda, adakah kilang-kilang penyebab utama pencemaran di Sungai Muda ?

(Hanya pilih satu jawapan sahaja)

- Sangat setuju
- Setuju
- Kurang setuju
- Tidak setuju

Q10. Pada fikiran anda, aktiviti-aktiviti manakah menyebabkan kualiti air di sungai Muda tercemar dengan teruk sekali?
(Tiada had jawapan)

- Kilang getah
- Kilang kelapa sawit
- Kilang memproses timah
- Ladang ternakan khinzir
- Rumah pam
- Bandar / kampung (saliran air)
- Pembuangan sampah / kotoran
- Perlombongan pasir
- Lain-lain (nyatakan)

Q11. Peranginan Pedu serta padang golf dan kemudahan penginapan akan dibuka tidak beberapa lama lagi. Kawasan ini terletak berhampiran dengan empangan Pedu di mana terletaknya hutan semulajadi yang dipenuhi hidupan liar. Kerajaan bercadang untuk memperkembangkan kawasan peranginan dan kemungkinan memajukan kawasan empangan Muda di masa akan datang. Apakah pandangan anda mengenai pembangunan di kawasan tersebut?
(Hanya pilih satu jawapan sahaja)

- Pembangunan tidak dibenarkan dalam sebarang sebab
- Pembangunan dibenarkan sekiranya kerajaan menentukan syarat dan batasan kawasan
- Pembangunan dibenarkan sekiranya kerajaan menentukan syarat dan batasan kawasan dan Kumpulan pencinta alam semulajadi bersetuju dengannya
- Pembangunan dibenarkan untuk dijadikan contoh pembangunan ekonomi daerah

Q12. Pada pendapat anda, adakah ramai orang akan datang ke kawasan koridor (kawasan rekreasi dan sukan) dan tepi sungai sepanjang Sungai Muda sekiranya pembinaan di masa akan datang?
(Hanya pilih satu jawapan sahaja)

- Ya, ramai orang akan datang untuk menggunakannya
- Kemungkinan hanya digunakan oleh sebahagian yang datang
- Tidak ramai orang yang datang
- Tidak pasti

Sekira jawapan Q12. adalah 'tidak', Mengapa tidak?
(Tiada had jawapan)

- Iklim Malaysia terlalu panas untuk aktiviti kegiatan luar
- Sungai Muda terletak berjauhan dengan kawasan penempatan
- Adalah sukar untuk membuat cadangan idaman ke atas tanah persendirian yang berdekatan dengan sungai. Di samping itu, kawasan awam (tanah kerajaan) adalah terhad.
- Potensi kawasan di sepanjang sungai Muda adalah terlalu kecil untuk dibangunkan di masa akan datang
- Penduduk Malaysia secara amnya tidak gemar meluangkan masa di tempat sebegini.
- Kawasan koridor tidak bernilai untuk rezab pemeliharaan alam semulajadi
- Lain-lain sebab (nyatakan)

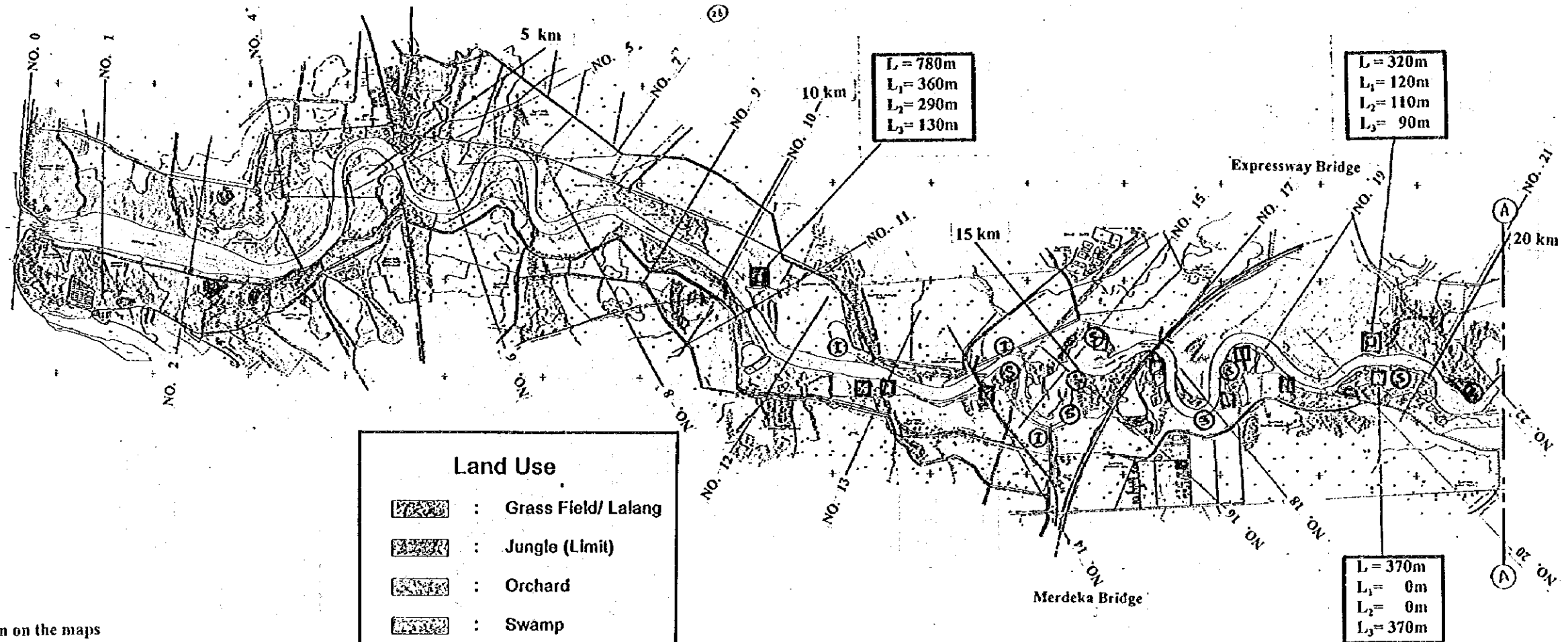
Q13. Sila terangkan ulasan-ulasan anda berkaitan perancangan koridor sungai di sungai Muda dan anak-anak sungai Muda.

Terima kasih

(Government)
Public Land along the River

- ☐ : Land with the width over 50m but low than 200m in length along the river
- ☐ : Land with the width over 50m and more than 200m along the river
 L = Total length of the area with the width over 50m along the river
 L_1 = Length of the area with the wide more than 200m
 L_2 = Length of the area with the wide more than 100m (but less than 200m)
 L_3 = Length of the area with the wide more than 50m (but less than 100m)

Note : Public land with the width less than 50m is not shown on the maps



Land Use

- ☐ : Grass Field/ Lalang
- ☐ : Jungle (Limit)
- ☐ : Orchard
- ☐ : Swamp
- ☐ : Paddy
- ☐ : Oil Palm
- ☐ : Rubber
- ☐ : Scrub/ Bush
- ☐ : Cultivated Land
- ☐ : Clear Land

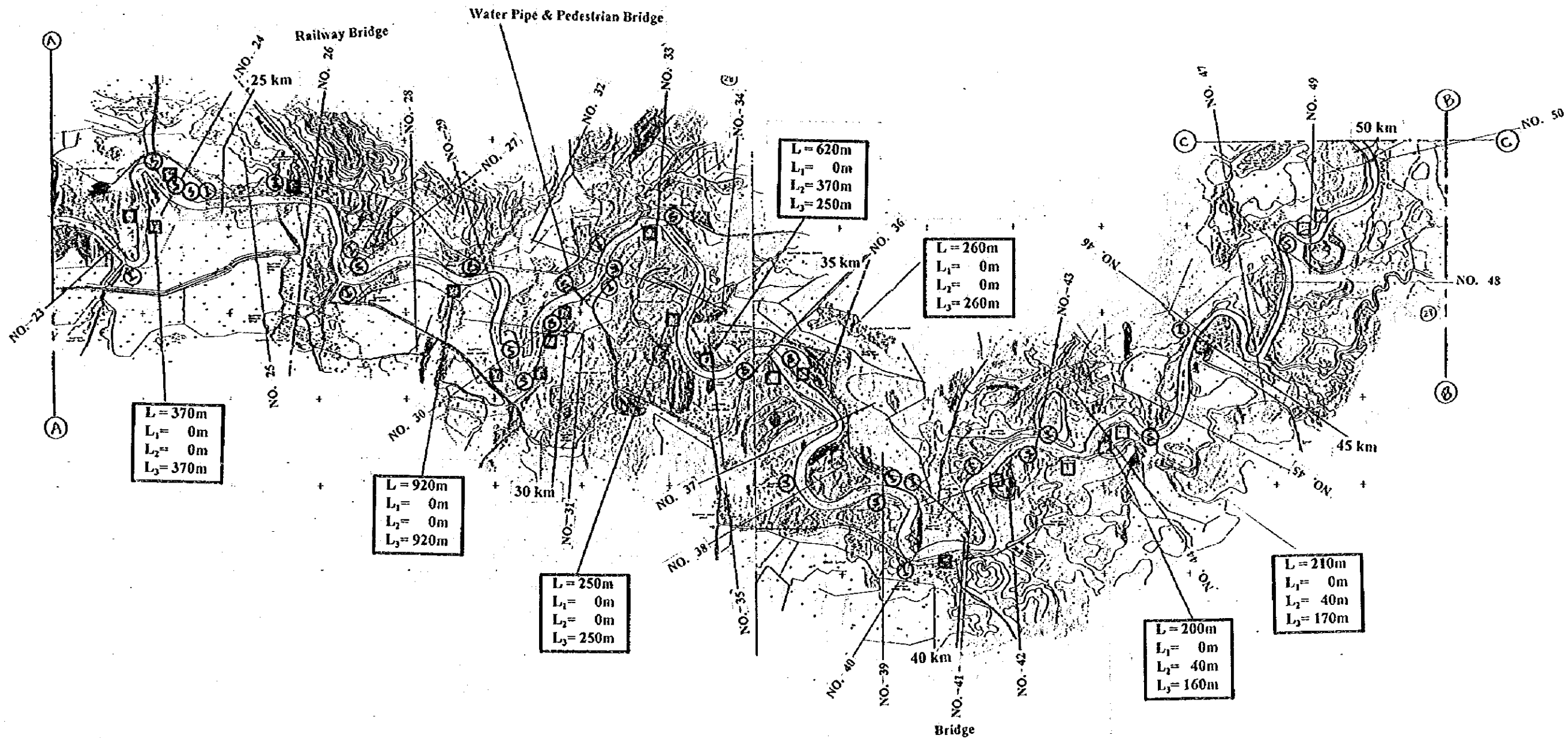
Major Information on the maps

1. Land Use Classification
2. Major Public Land
3. Locations of Major Structures (Infake, Bridge, Barrage, etc.)
4. Locations of River Cross Section Survey
5. Distance from River Mouth (or Confluence)
6. Locations of Existing Sand Mining Site

COMPREHENSIVE MANAGEMENT PLAN OF
MUDA RIVER BASIN

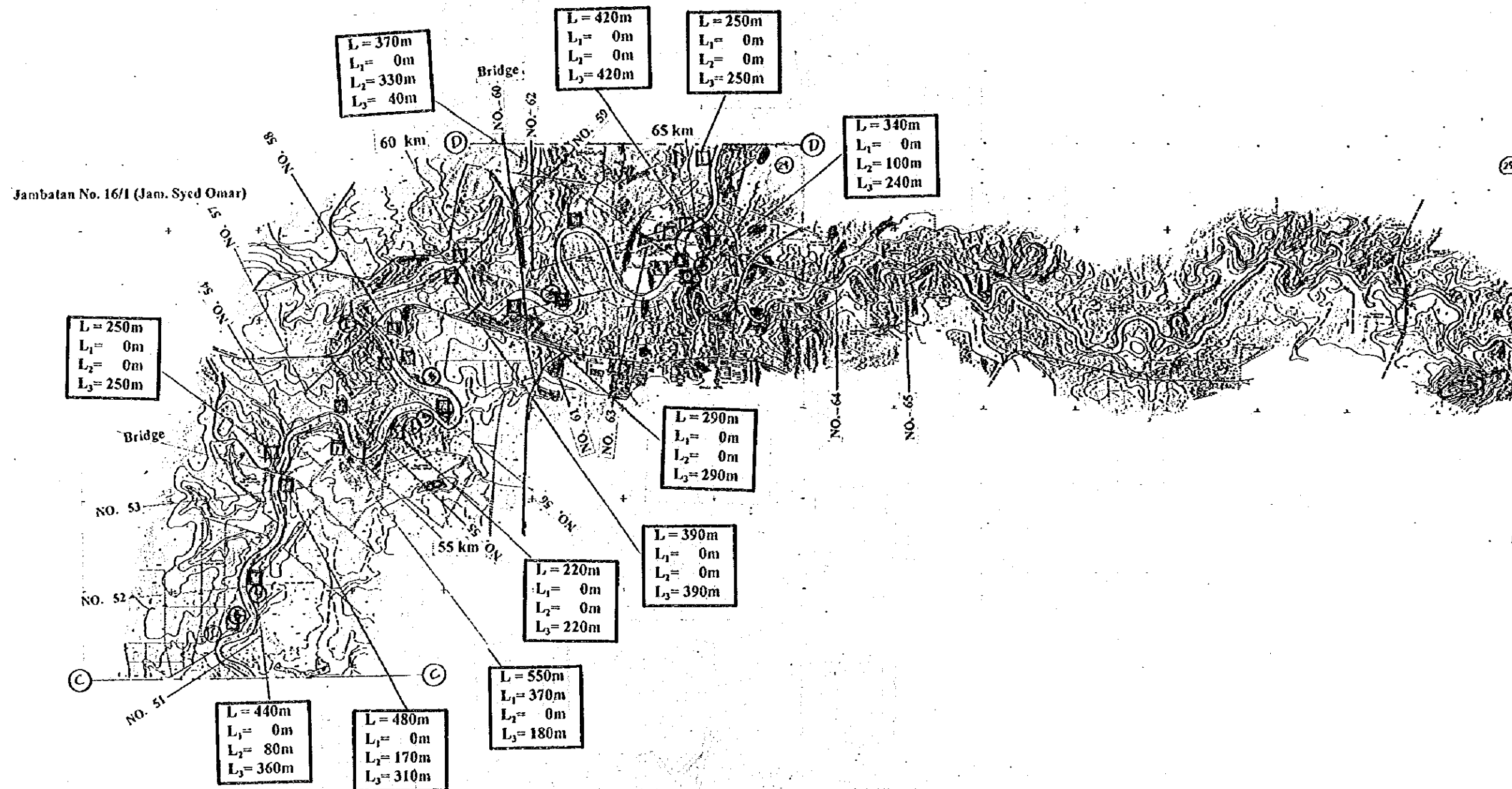
JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
BASE MAP FOR RIVER CORRIDOR PLANNING,
MUDA RIVER MAIN STREAM (1/9)



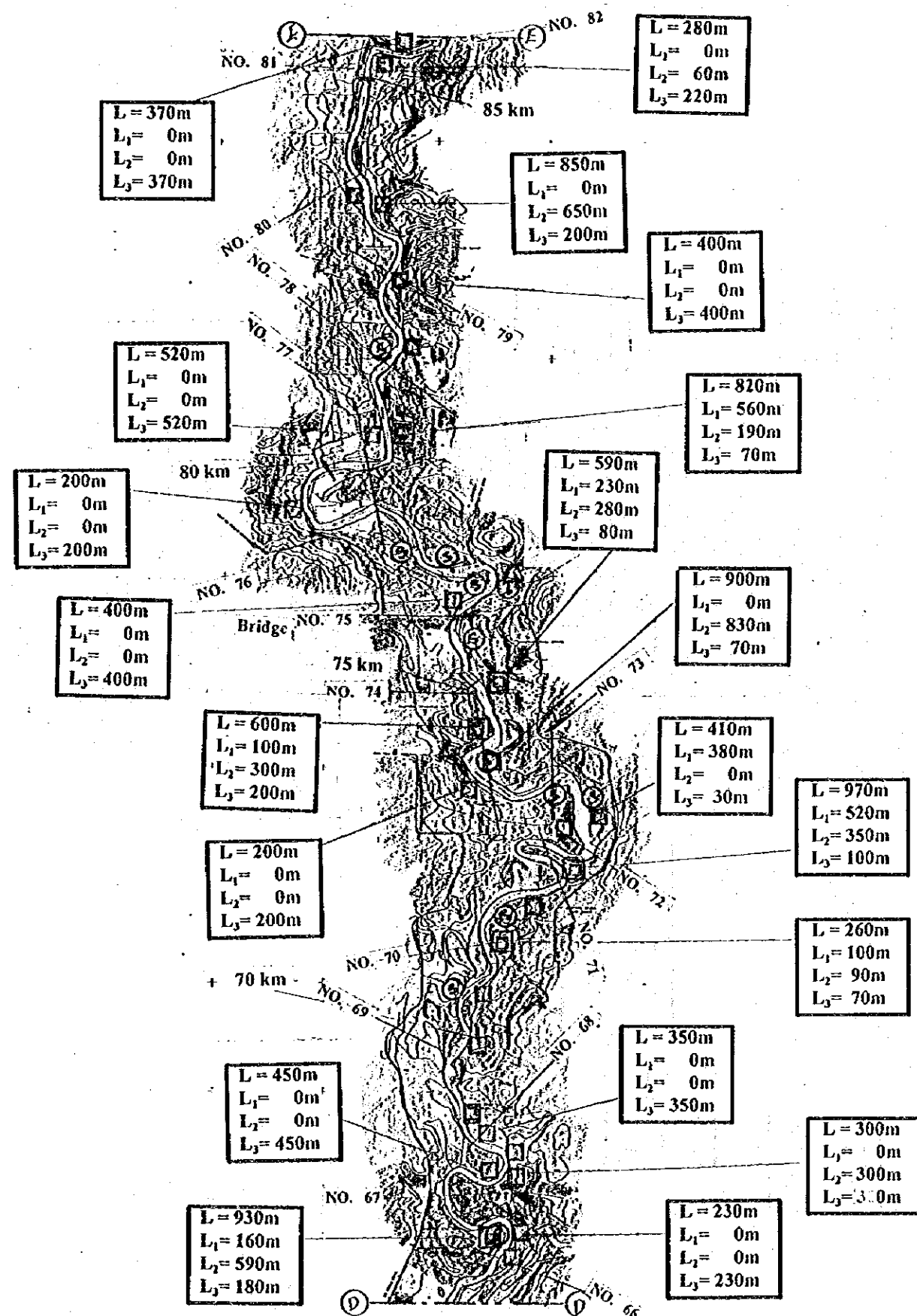
COMPREHENSIVE MANAGEMENT PLAN OF
MUDA RIVER BASIN
JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
BASE MAP FOR RIVER CORRIDOR PLANNING,
MUDA RIVER MAIN STREAM (2/9)



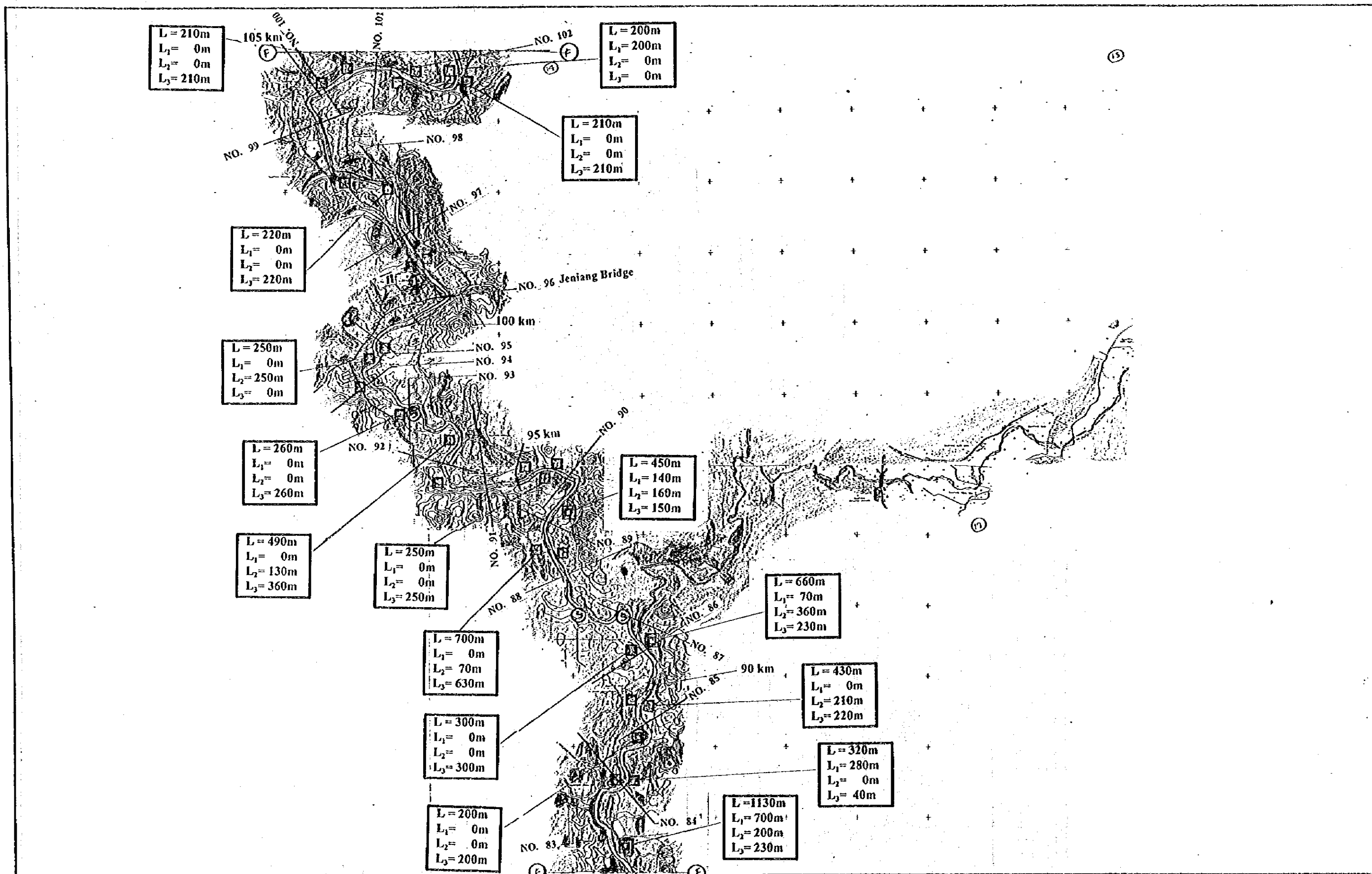
COMPREHENSIVE MANAGEMENT PLAN OF
 MUDA RIVER BASIN
 JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
 BASE MAP FOR RIVER CORRIDOR PLANNING,
 MUDA RIVER MAIN STREAM (3/9)



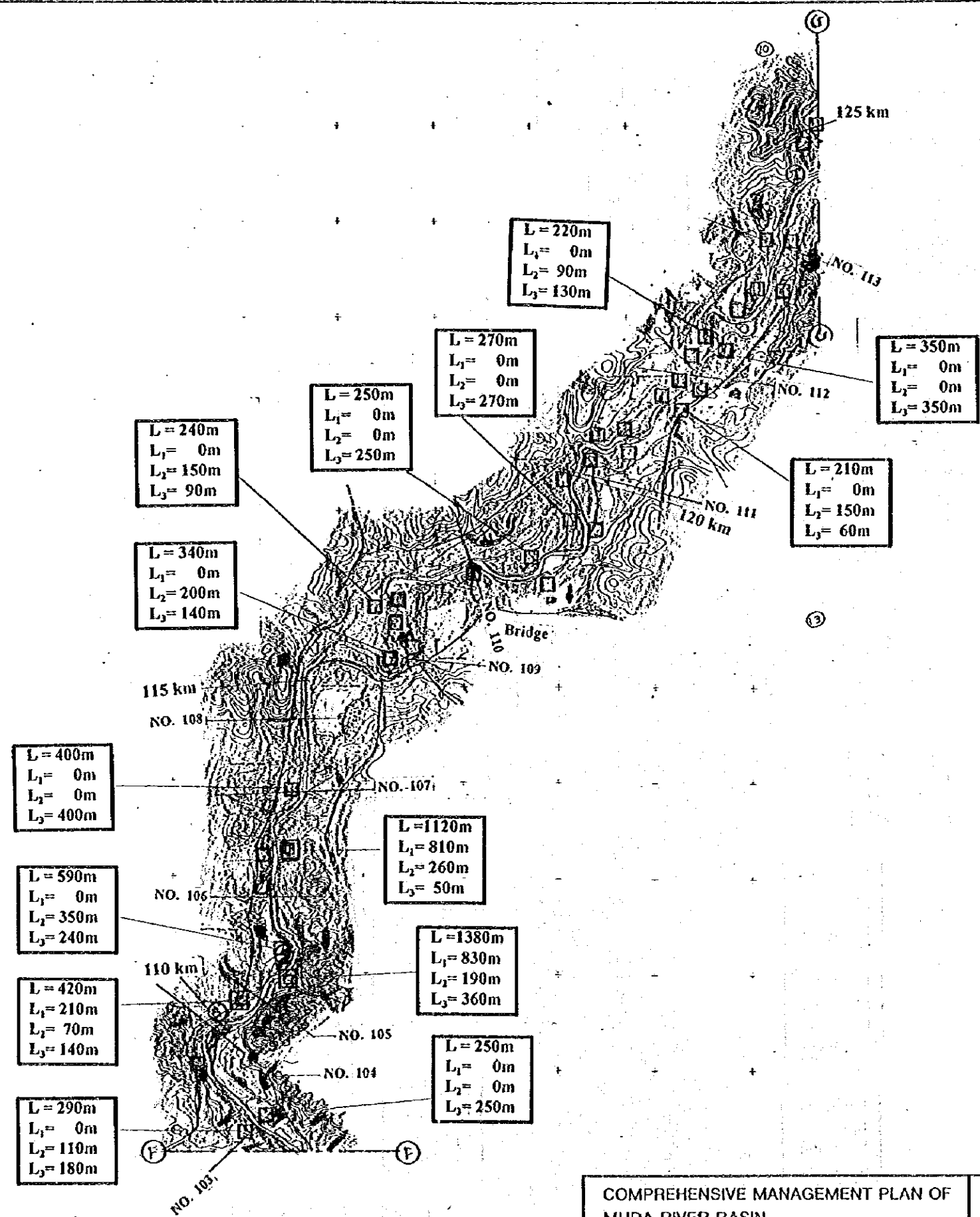
COMPREHENSIVE MANAGEMENT PLAN OF
MUDA RIVER BASIN
JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
BASE MAP FOR RIVER CORRIDOR PLANNING,
MUDA RIVER MAIN STREAM (4/9)



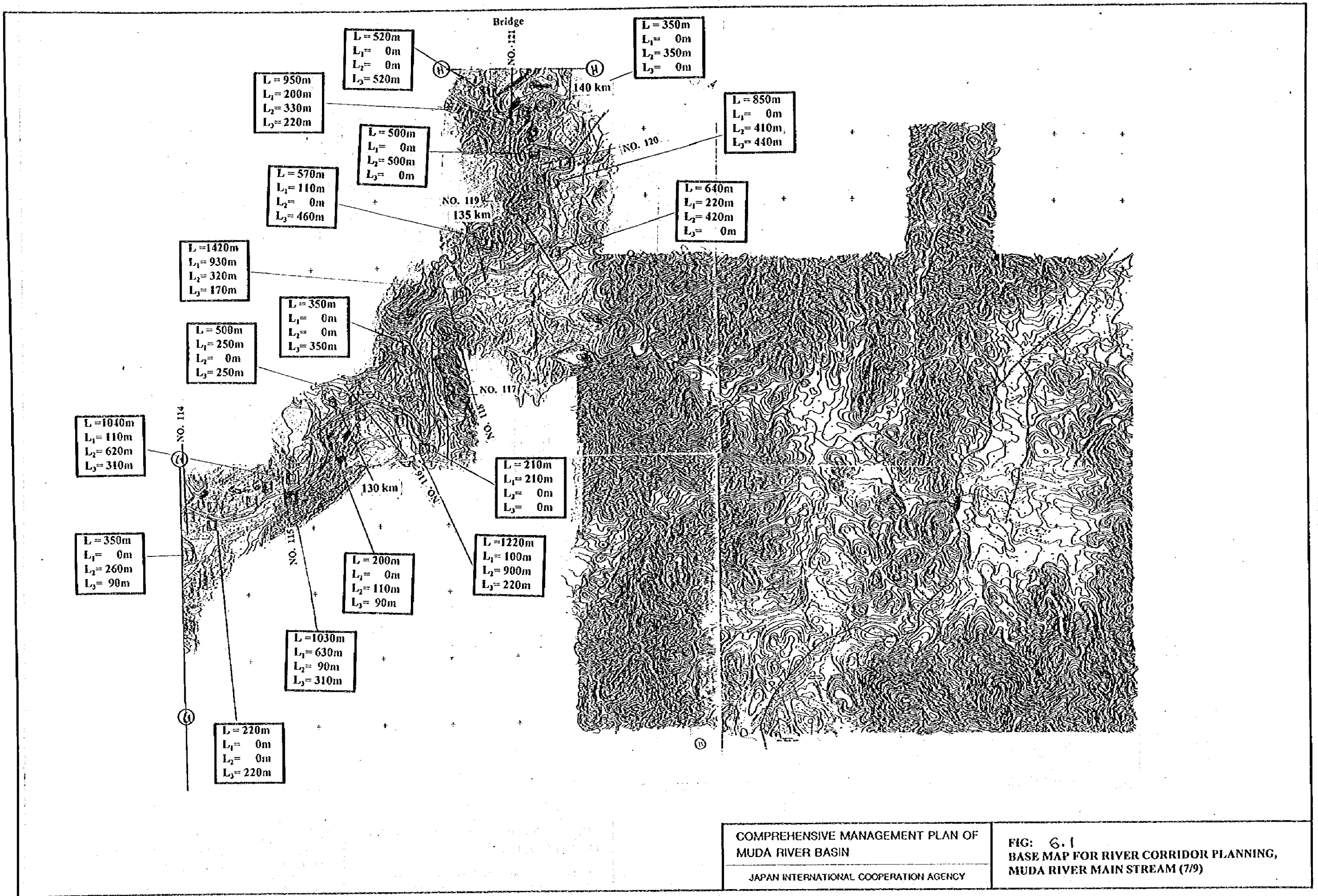
COMPREHENSIVE MANAGEMENT PLAN OF
 MUDA RIVER BASIN
 JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
 BASE MAP FOR RIVER CORRIDOR PLANNING,
 MUDA RIVER MAIN STREAM (5/9)



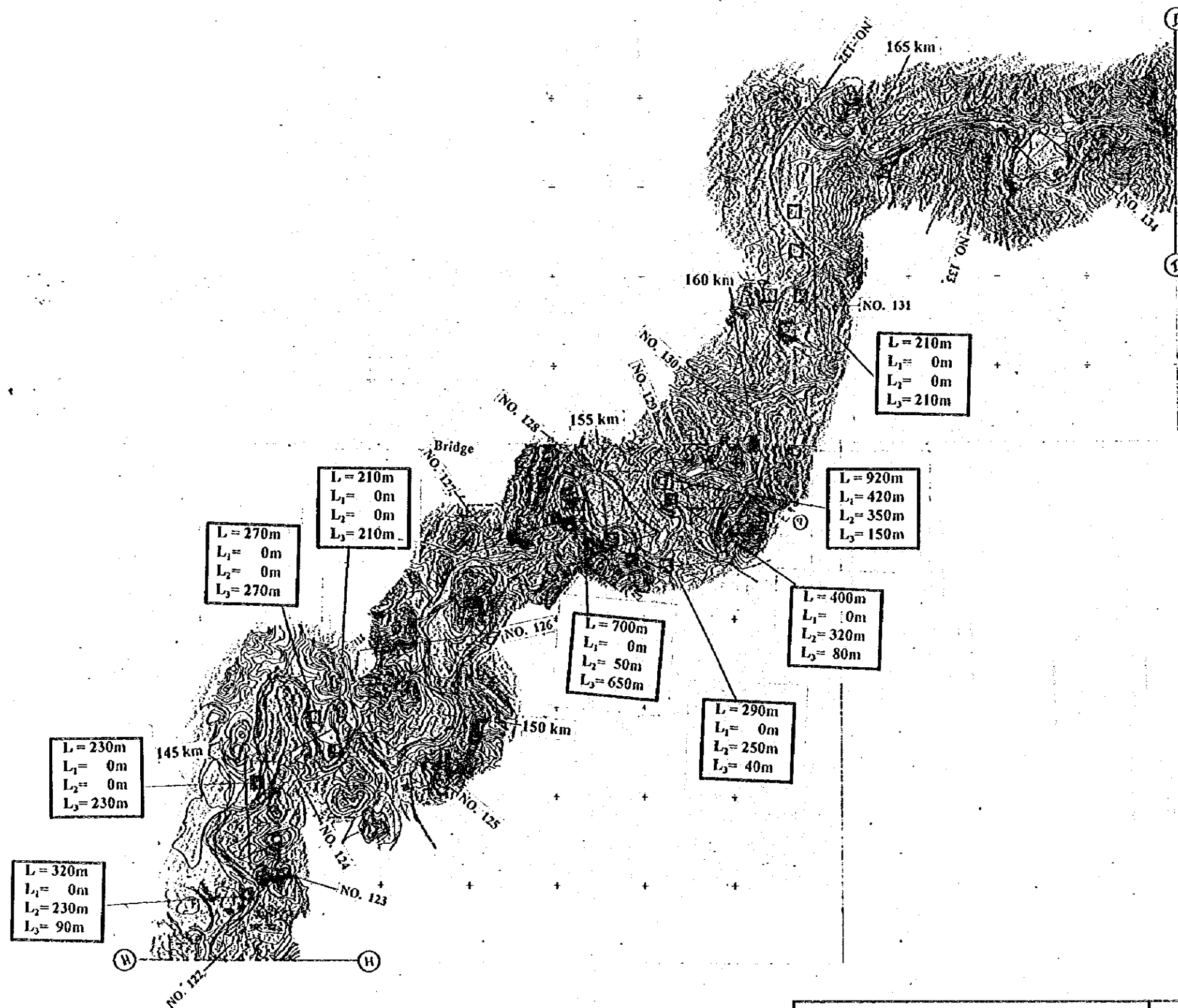
COMPREHENSIVE MANAGEMENT PLAN OF
 MUDA RIVER BASIN
 JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
 BASE MAP FOR RIVER CORRIDOR PLANNING,
 MUDA RIVER MAIN STREAM (6/9)



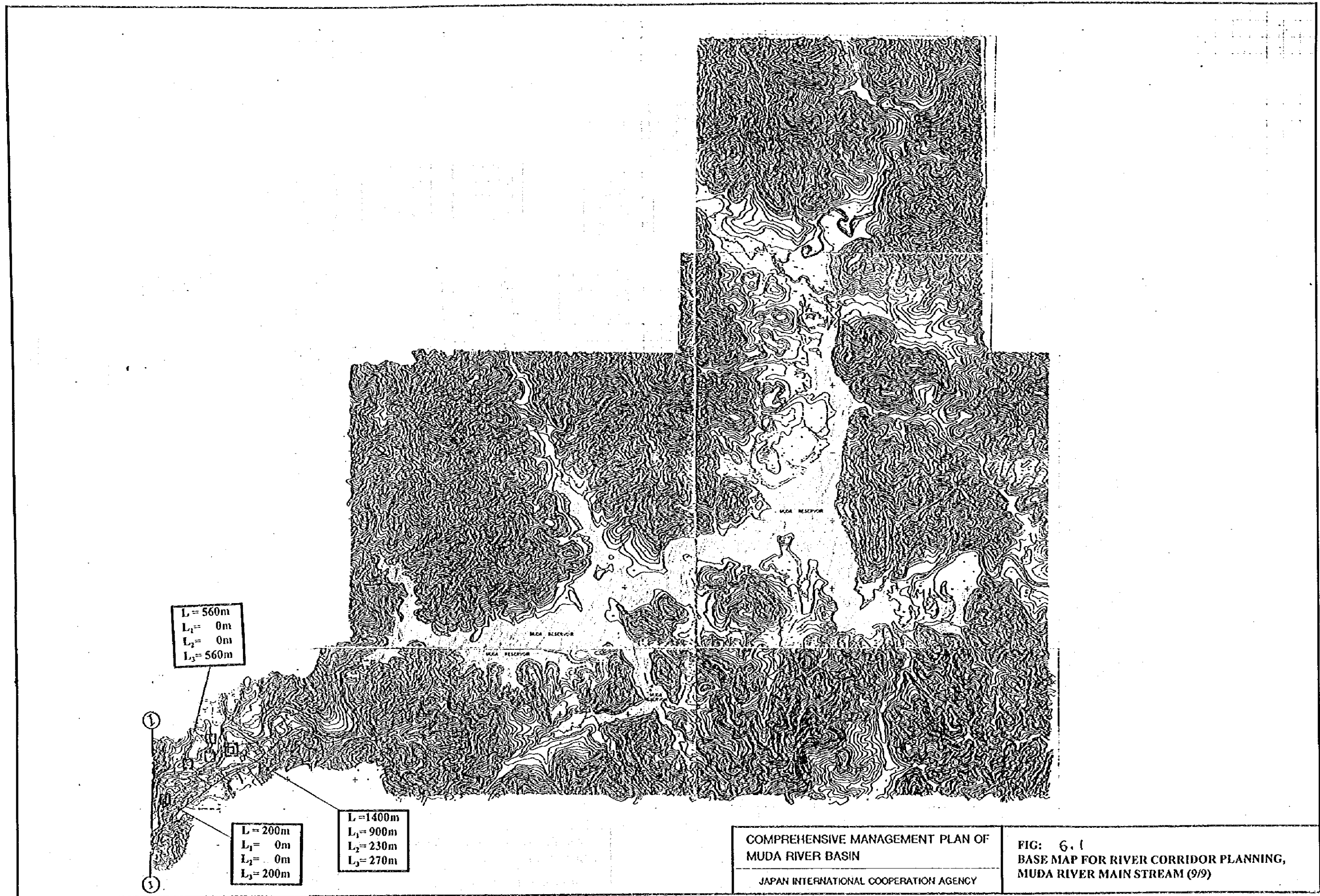
COMPREHENSIVE MANAGEMENT PLAN OF MUDA RIVER BASIN
JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
BASE MAP FOR RIVER CORRIDOR PLANNING, MUDA RIVER MAIN STREAM (7/9)



COMPREHENSIVE MANAGEMENT PLAN OF
MUDA RIVER BASIN
JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
BASE MAP FOR RIVER CORRIDOR PLANNING,
MUDA RIVER MAIN STREAM (8/9)



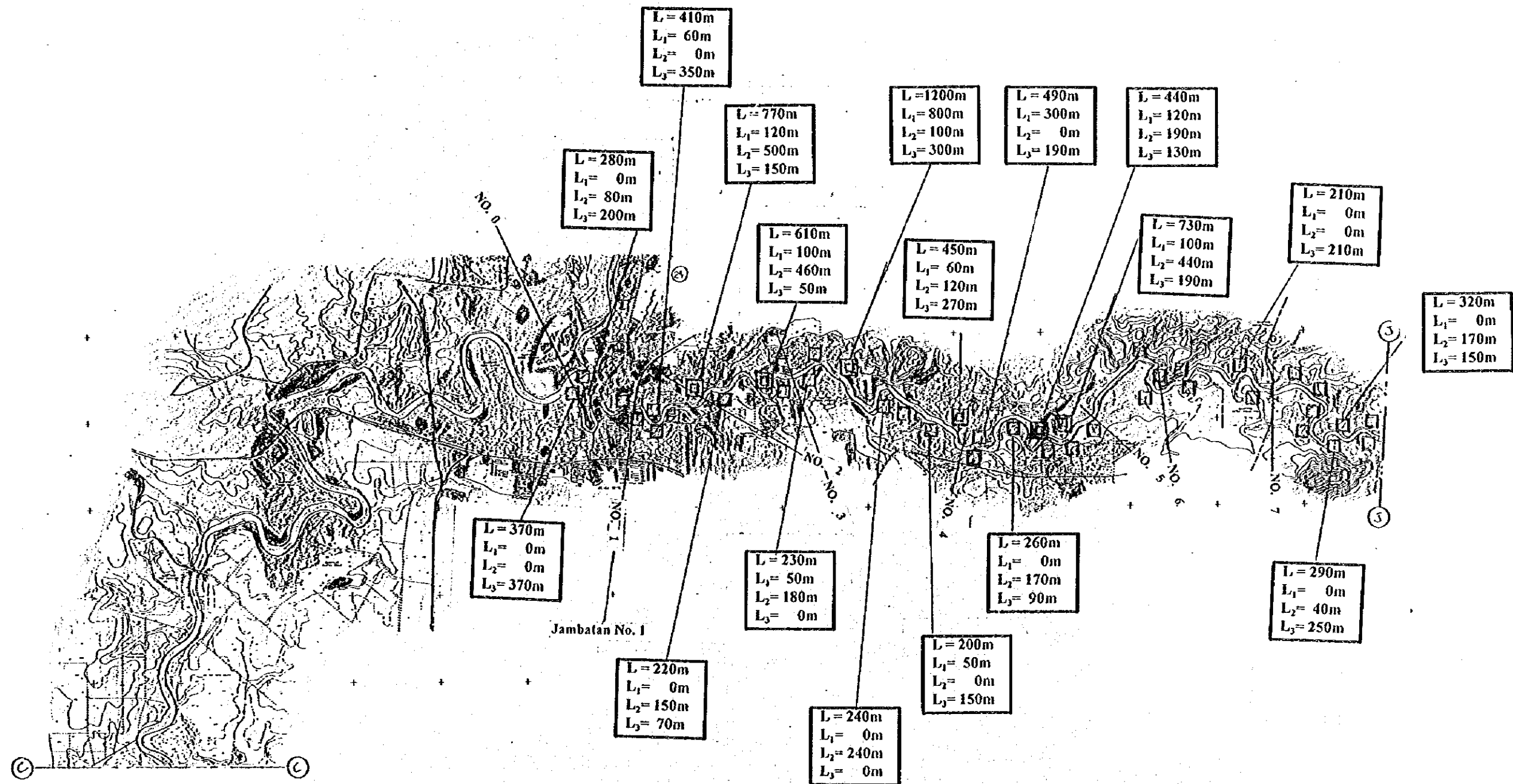
L = 560m
 L₁ = 0m
 L₂ = 0m
 L₃ = 560m

L = 200m
 L₁ = 0m
 L₂ = 0m
 L₃ = 200m

L = 1400m
 L₁ = 900m
 L₂ = 230m
 L₃ = 270m

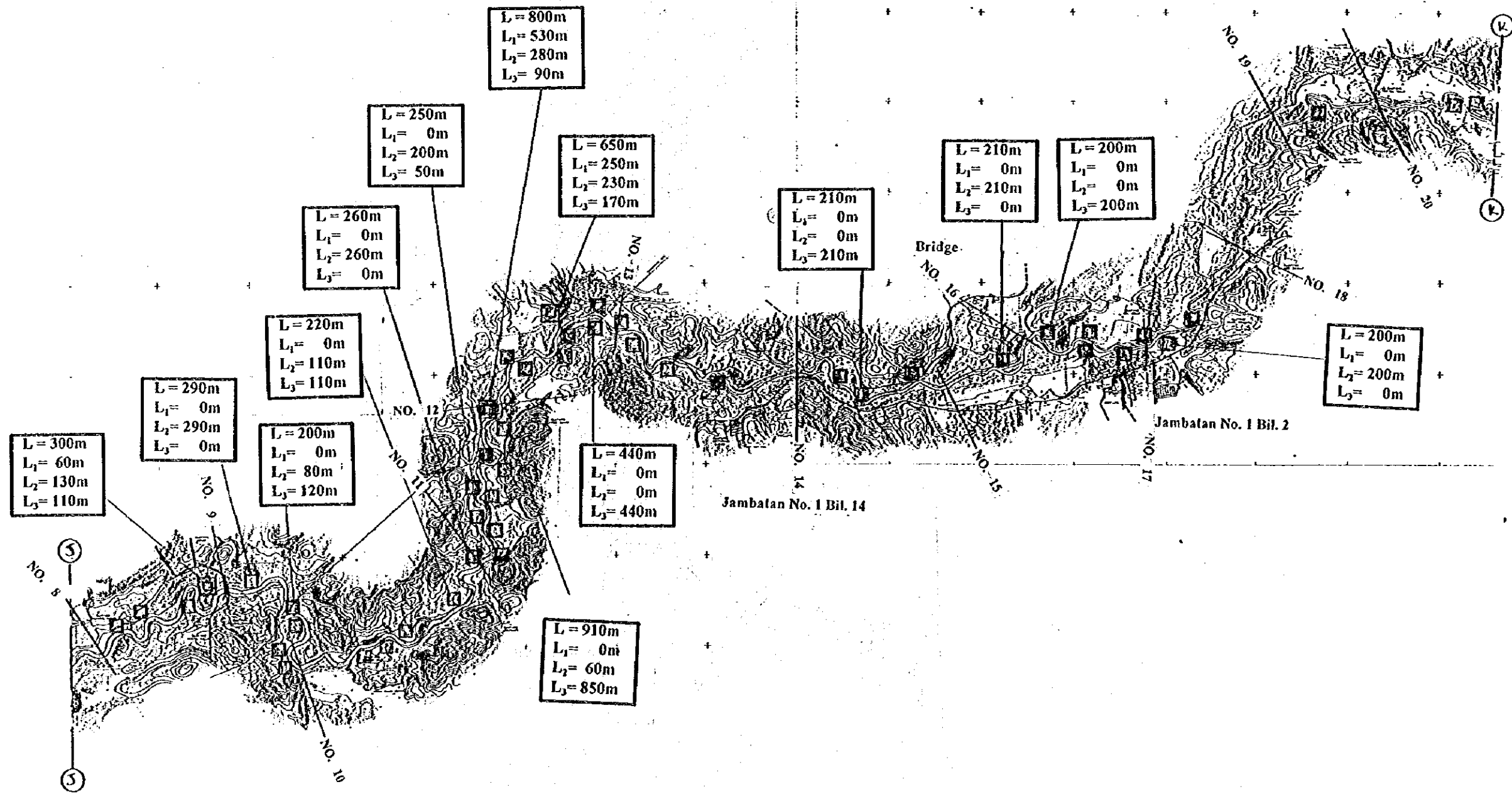
COMPREHENSIVE MANAGEMENT PLAN OF
 MUDA RIVER BASIN
 JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.1
 BASE MAP FOR RIVER CORRIDOR PLANNING,
 MUDA RIVER MAIN STREAM (9/9)



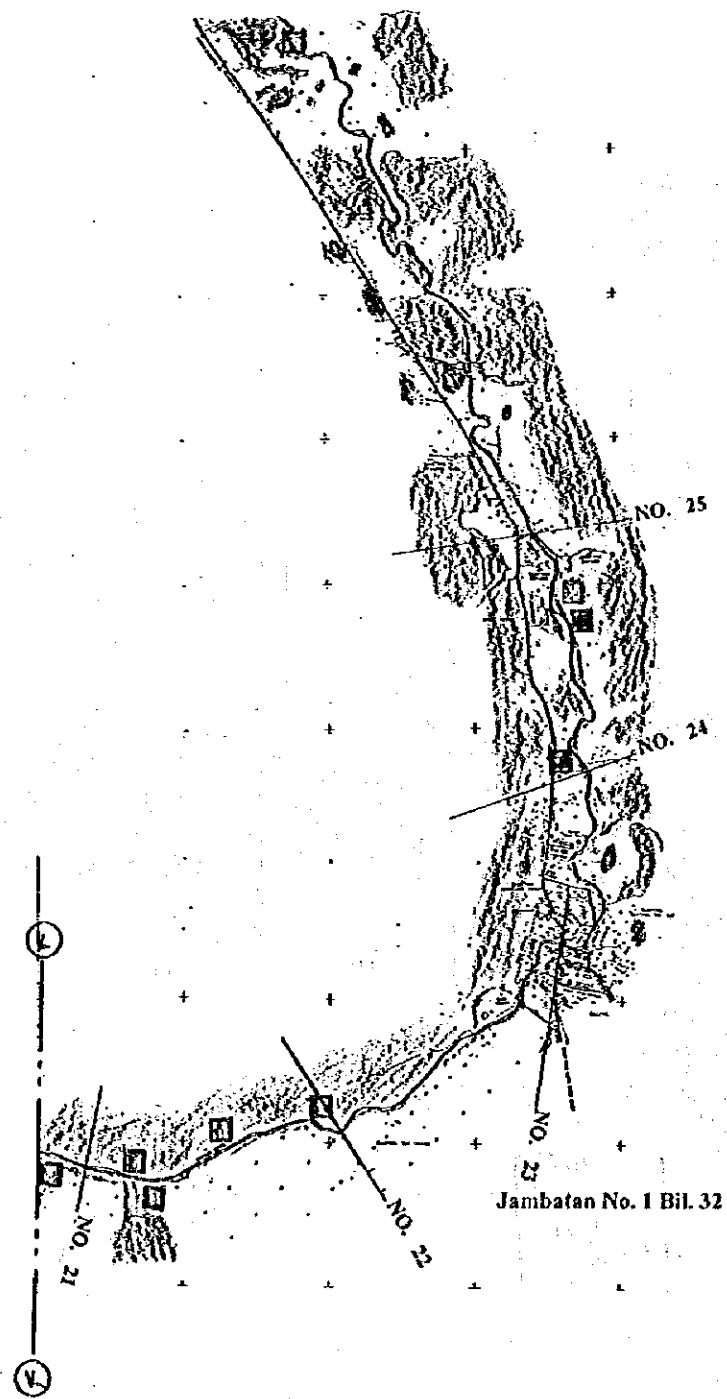
COMPREHENSIVE MANAGEMENT PLAN OF
MUDA RIVER BASIN
JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.2
BASE MAP FOR RIVER CORRIDOR PLANNING,
KETIL RIVER MAIN STREAM (1/3)



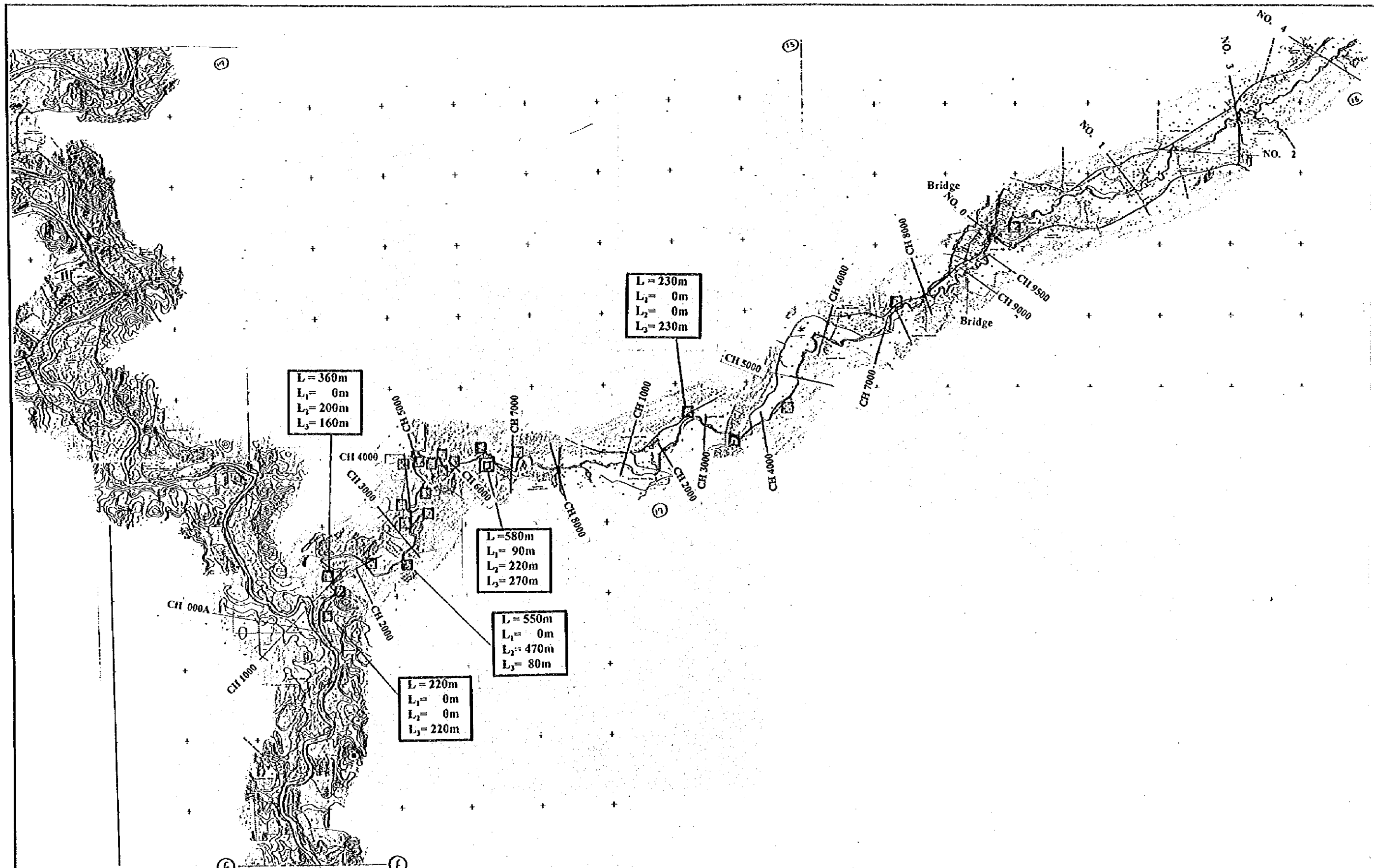
COMPREHENSIVE MANAGEMENT PLAN OF
MUDA RIVER BASIN
JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.2
BASE MAP FOR RIVER CORRIDOR PLANNING,
KETIL RIVER MAIN STREAM (2/3)



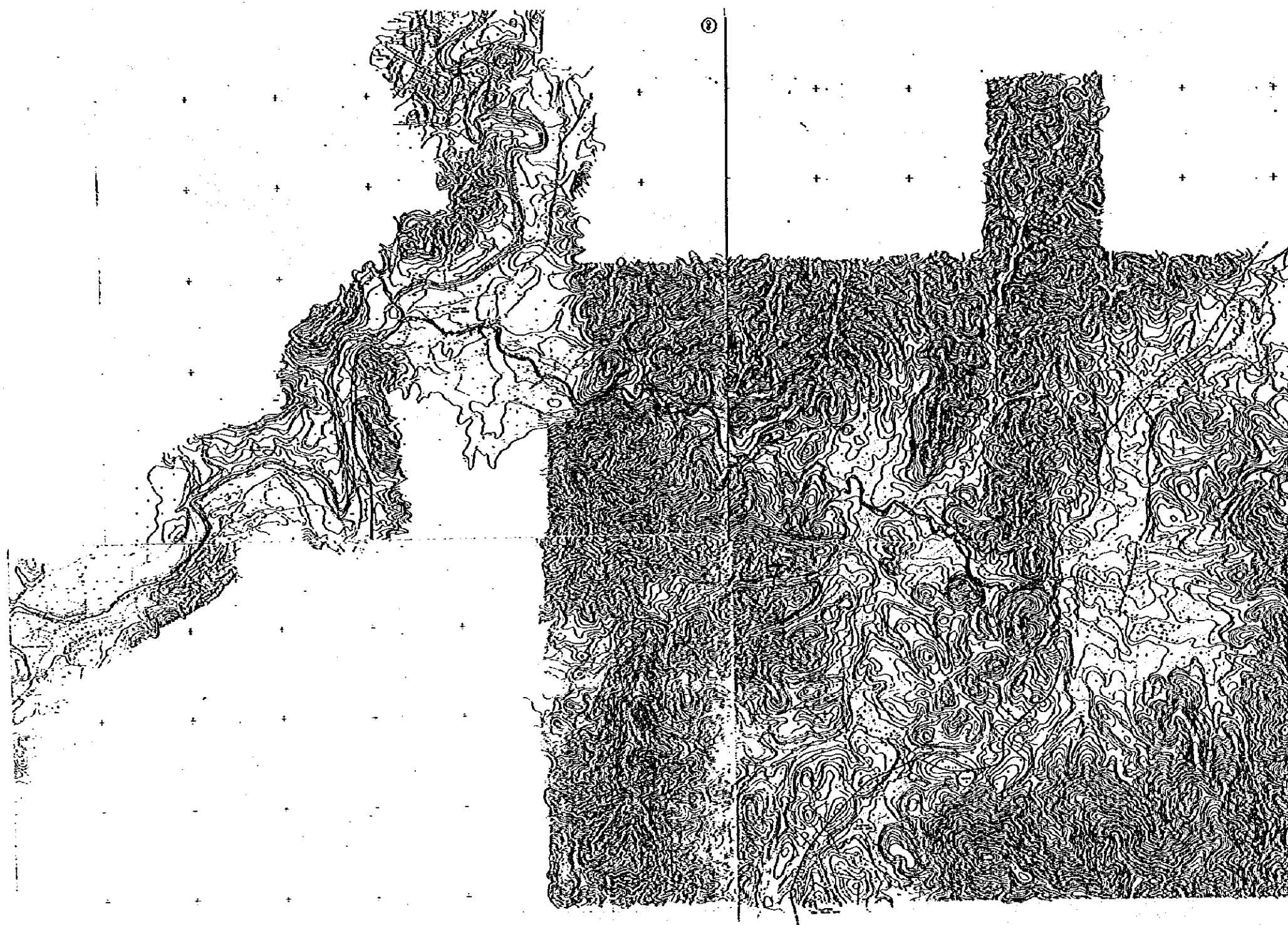
COMPREHENSIVE MANAGEMENT PLAN OF
 MUDA RIVER BASIN
 JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.2
 BASE MAP FOR RIVER CORRIDOR PLANNING,
 KETIL RIVER MAIN STREAM (3/3)



COMPREHENSIVE MANAGEMENT PLAN OF
 MUDA RIVER BASIN
 JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.3
 BASE MAP FOR RIVER CORRIDOR PLANNING,
 CHEPIR RIVER MAIN STREAM (1/1)



COMPREHENSIVE MANAGEMENT PLAN OF
MUDA RIVER BASIN
JAPAN INTERNATIONAL COOPERATION AGENCY

FIG: 6.4-
BASE MAP FOR RIVER CORRIDOR PLANNING,
BERIS RIVER MAIN STREAM (1/1)

JICA