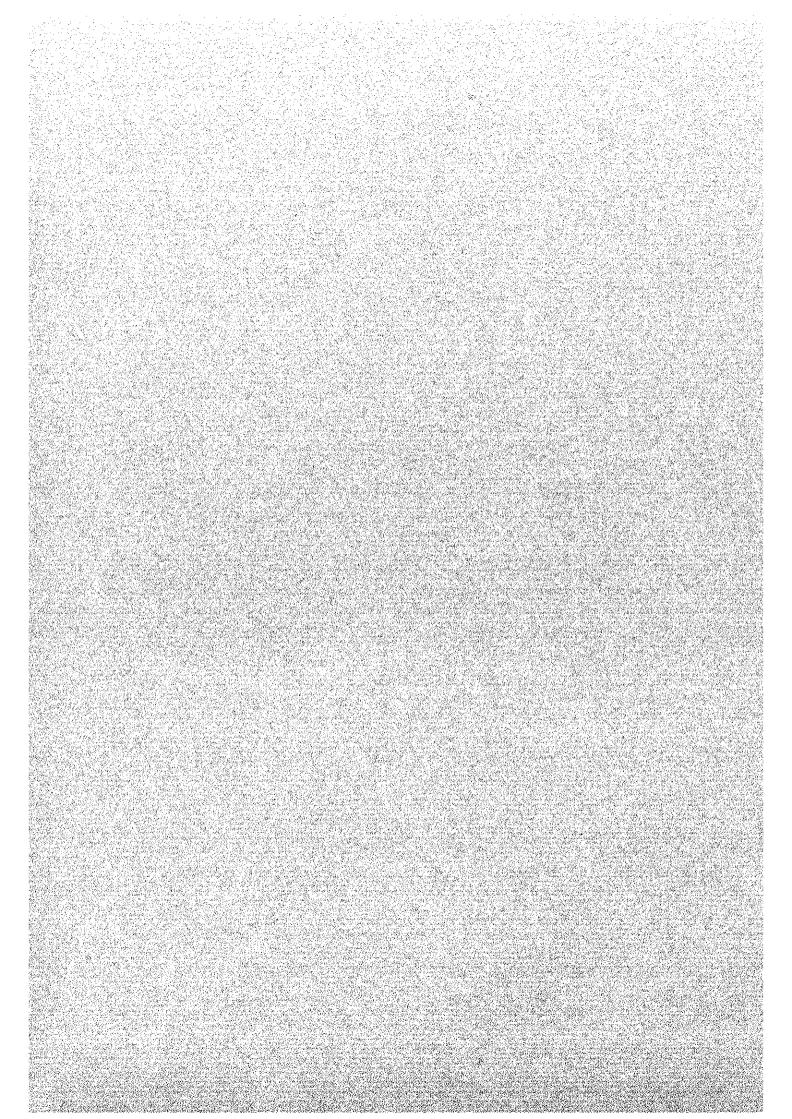
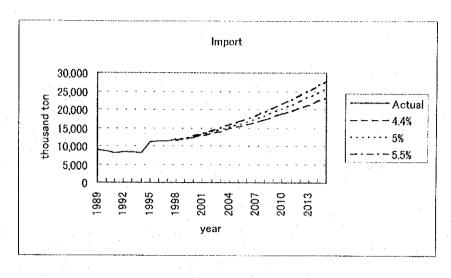
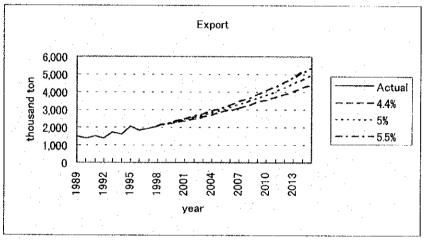
## APPENDIX E MONGLA PORT DEMAND FORECAST







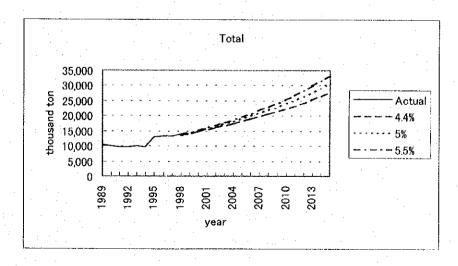
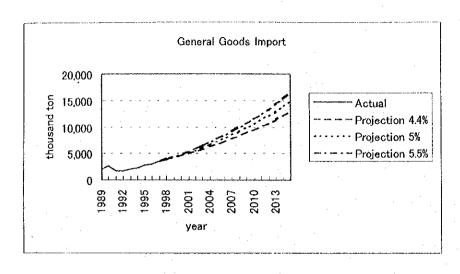
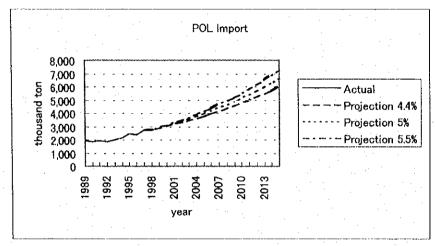


Fig. E-7.2.1 Macro Demand Forecast





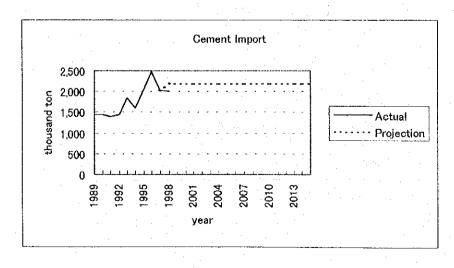
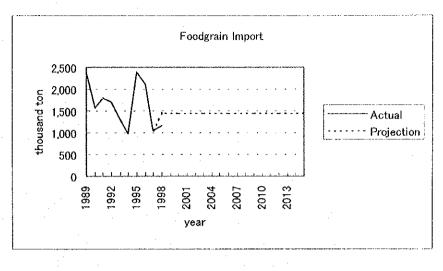
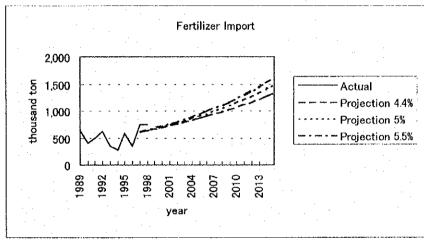


Fig. E-7.2.2 Micro Demand Forecast - Import (1)





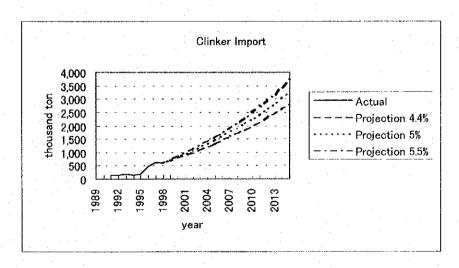
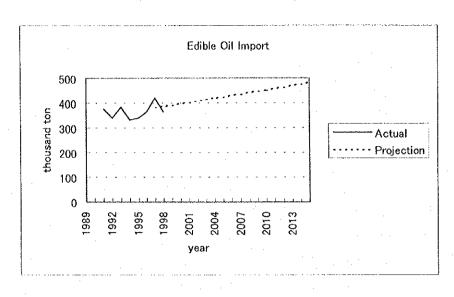
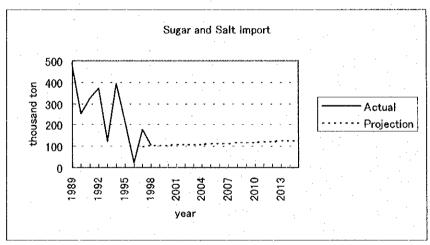


Fig. E-7.2.2 Micro Demand Forecast - Import (2)





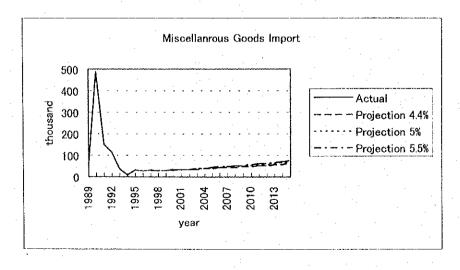
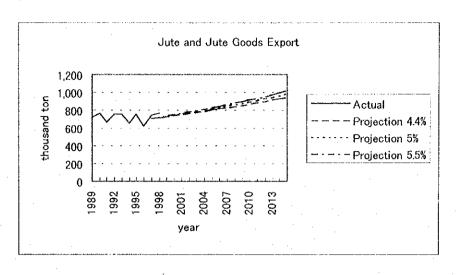
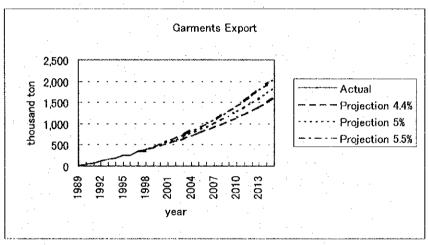


Fig. E-7.2.2 Micro Demand Forecast - Import (3)





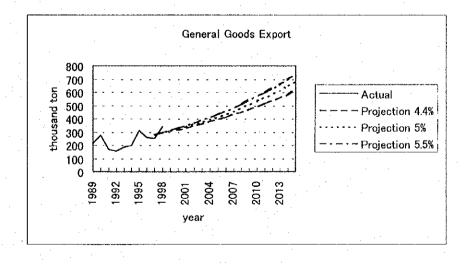
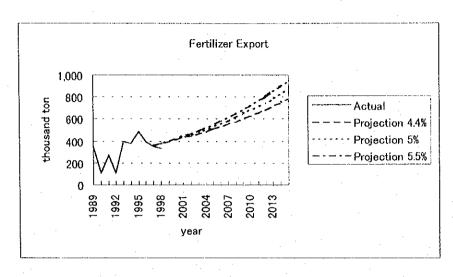
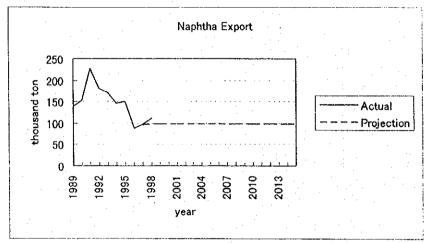


Fig. E-7.2.3 Micro Demand Forecast - Export (1)





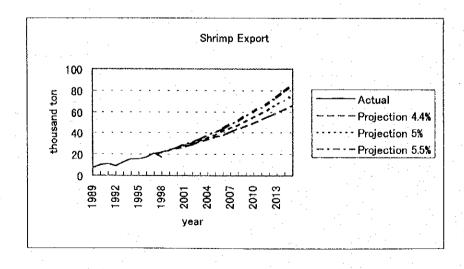
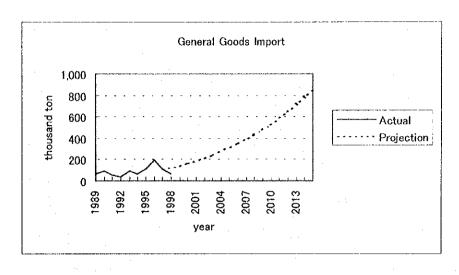
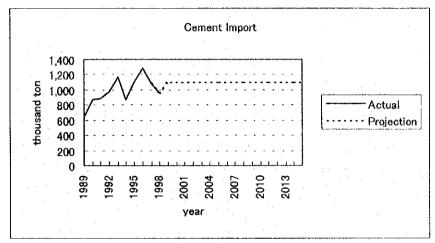


Fig. E-7.2.3 Micro Demand Forecast - Export (2)





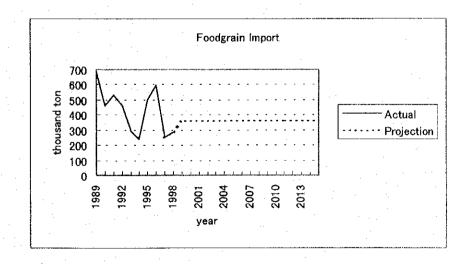
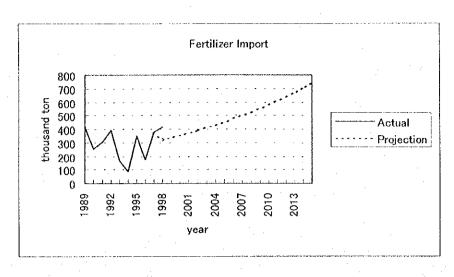
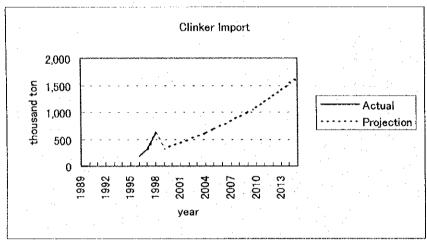


Fig. E-7.2.4 Demand Forecast of Mongla Port (1)





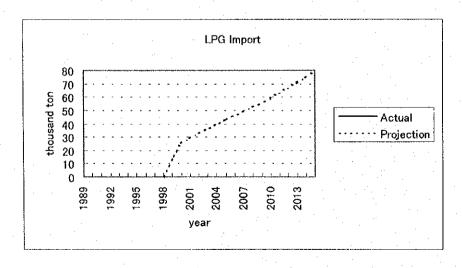
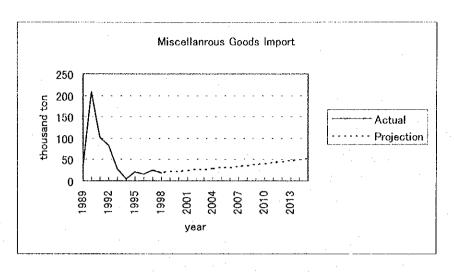
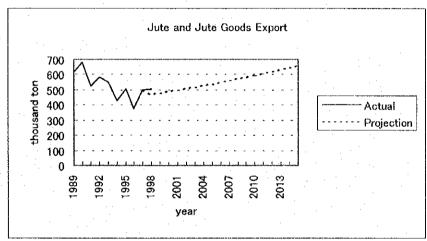


Fig. E-7.2.4 Demand Forecast of Mongla Port (2)





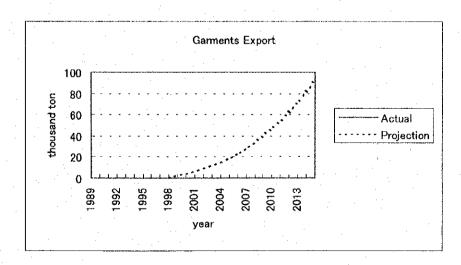
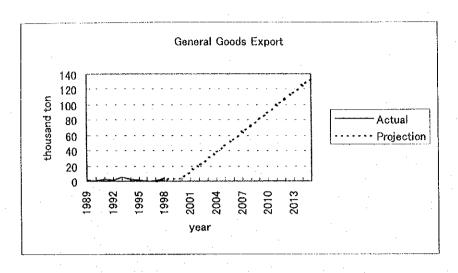
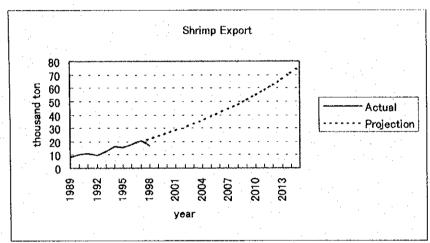


Fig. E-7.2.4 Demand Forecast of Mongla Port (3)





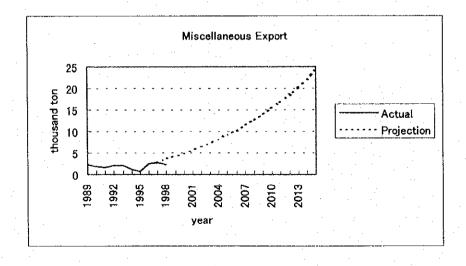


Fig. E-7.2.4 Demand Forecast of Mongla Port (4)

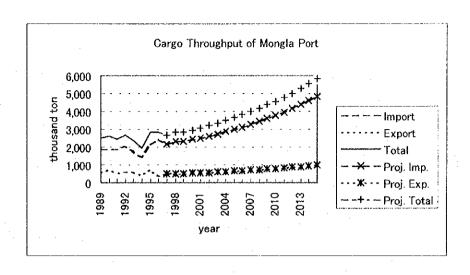
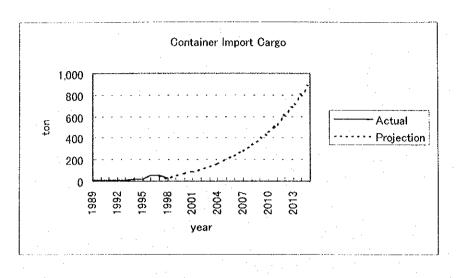
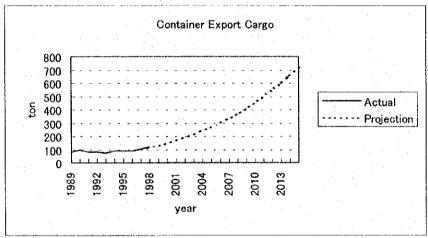


Fig. E-7.2.4 Demand Forecast of Mongla Port (5)





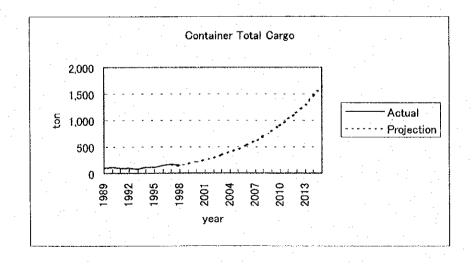
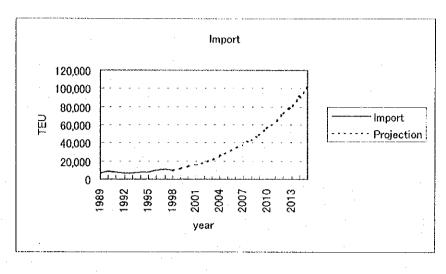
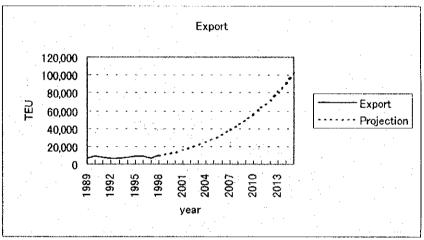


Fig. E-7.2.5 Container Throughput at Mongla Port





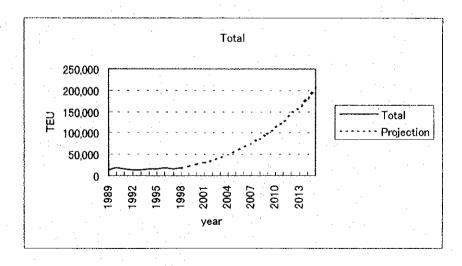
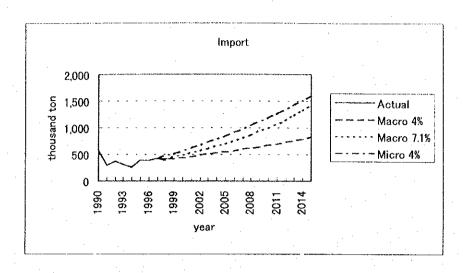
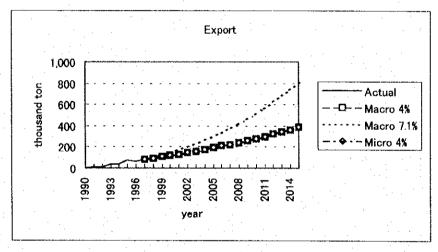


Fig. E-7.2.6 Container Throughput in TEU Basis





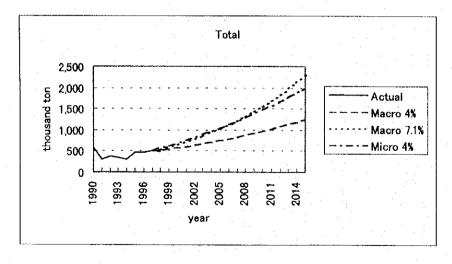
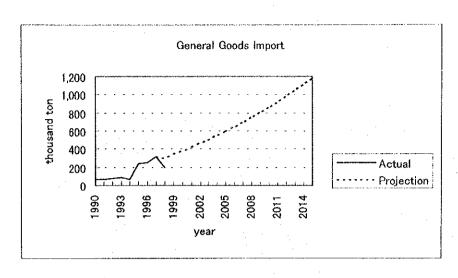
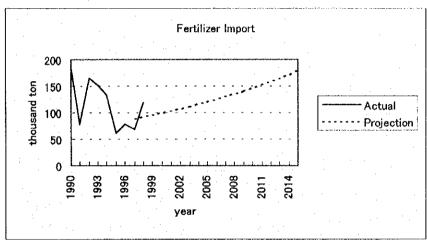


Fig. E-7.3.1 Forecast of Nepalese Cargo





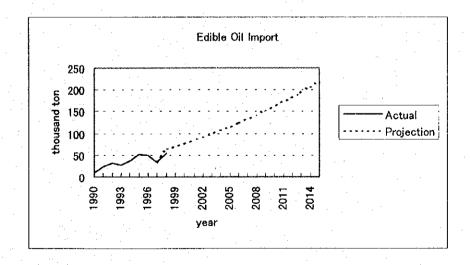
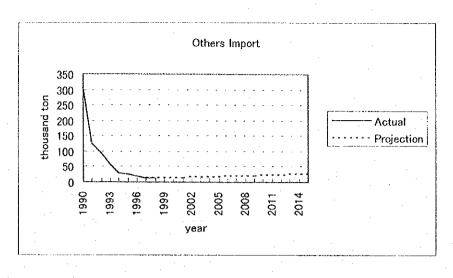
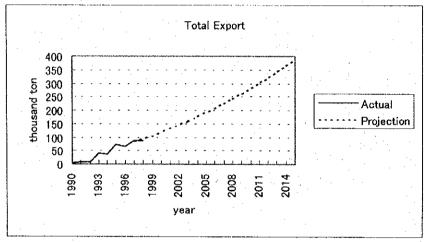


Fig. E-7.3.2 Micro Demand Forecast for Nepalese Cargo (1)





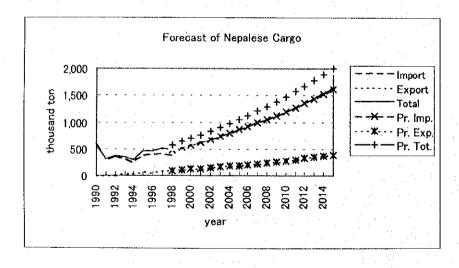


Fig. E-7.3.2 Micro Demand Forecast for Nepalese Cargo (2)

## APPENDIX F TRAFFIC DEMAND FORECAST

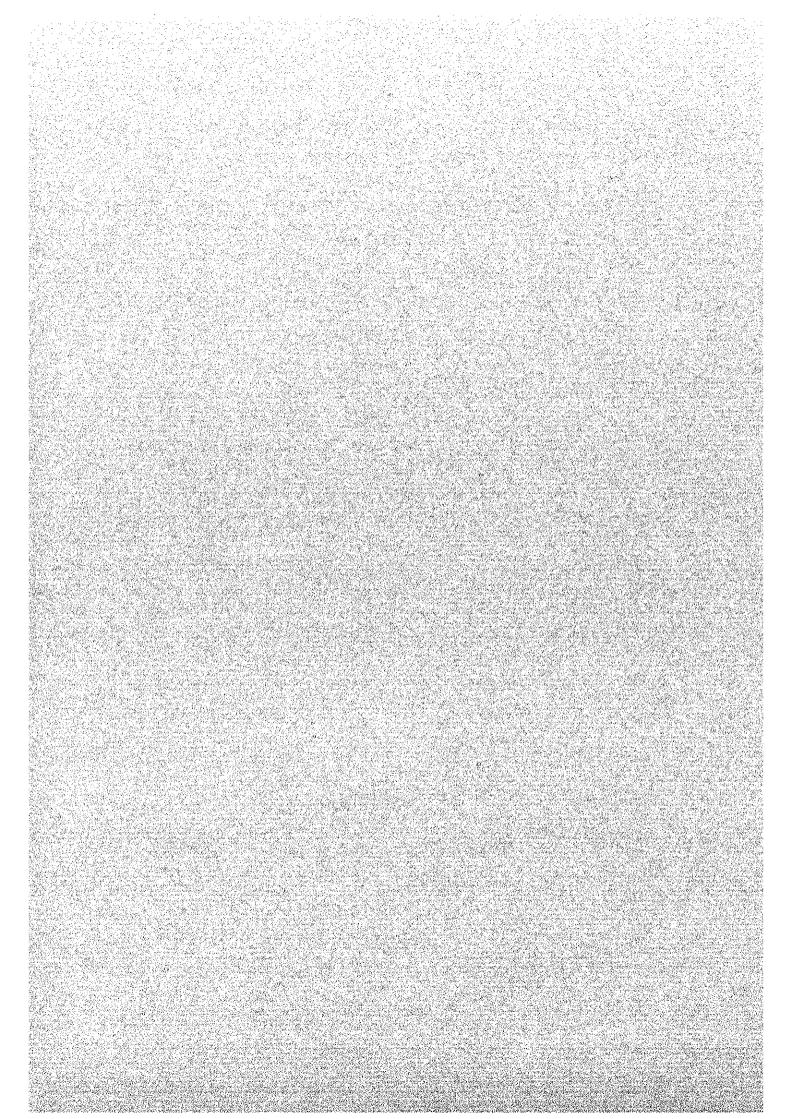


Table F-8.3.1 Reality Check

	Survey		Auring Roadside	Interview S		Unit: Vehicle/Day	/Day
	Daily Average Traffic v	Cloude I of	Oldine I D. dal n. B. trockehaw	Car	Bus	Truck	Total
	Location	Motorsycie	1 775	594	901	1,265	4,969
	Khulna-Jessore	455	0,7,	200	2	400	2 844
	Vb. Jas-Shatkhira	812	551	360	047	204	4,044
	Midral Shawing	108	33	169	435	249	994
	Kampal-Mongia For	146	199	159	434	291	1,228
	Fakirhat-Bagernat		700	04	180	177	872
	Fakirhat-Mollahat	218	707			101	1 274
	Binsa Ferry	381	29	744	717	40,1	1,2,
- :						Init Vehicle/Dav	-/Dav
	Becall of Assignment (KA)	¥					-
	Toping of the state of the stat	Mataraka	Motosovole AutoBickshaw	Car	Bus	Truck	lotal
	Location	INDICOI SYCIC	1 557	502	806	1.367	4,852
	Khuina-Jessore	478	100,1	200	2 2	200	0 0 0
	Khilas-Chatkhira	769	553	426	029	cac	2,303
	Nicial Silaconia	140	31	170	429	246	1,016
	Kampal-Mongia For L	2 2	105	150	431	294	1,257
	Fakirhat-Bagerhat	9/-	261	3 6		100	010
	Eakirbot-Mollabat	224	506	66	182	102	716
	Disco Comi	381	30	232	211	409	1,263
	rupsa reny						

Location         Motorsycle AutoRickshaw           Khulna-Jessore         0.99         0.88           Khulna-Shatkhira         0.95         1.00           Rampal-Mongla Port         1.30         0.95           Fakirhat-Bagerhat         1.22         0.98	Car 1.00 1.18	1.01	1.08 1.18	1.04
0.99 0.00 0.00 0.00 0.00 0.00 0.00 0.00		1.01	1.08	1.04
0.99 C 0.95 1 1.30 C		1.01	1.18	1.04
0.95 1.30 (0.100)		1.01	1.18	1.04
0.95 1.30 (		000	01.0	2
1.30 (	101	000	000	7
1.30 (		2		-
1.22		0.35	0.33	70-
1.22		000	7	
7.7.	00	66.0	] 	77.
		,	* + -	ر د
1 03	160	<u>=</u>	<u>+</u>	2.
Fakirhat-Mollanat		90,	7	000
D. 100 1 100 1.00	0.95	00.	1.001	5.0

Table F-8.3.2 Vehicle OD Tables in 1998 (1)

Bus	lizi I O'I	10		[C-4]-:	ltdd	D - u - ul t	Mallabet
	Khulna City	Fakirhat, Rampal	Jessore, Northwest Area, Dhaka etc.	Satkhira etc.	Mongia port	Bagerhat, Barisal Division etc.	Mollahat etc.
Khulna City	22			296	34	23	25
Rupsa, Fakirhat,	18	4	2	3	109	106	76
Jessore,	428	0	6	5	6	1	. 0
Northwest							
Area, Dhaka etc.							
Satkhira etc.	316	3	25	7	0	0	0
Mongla port	24	114	2	0	3	70	0
Bagerhat,	35	116	8	2	70	2	0
Barisal Division etc.							
Mollahat etc.	1	70	0	0	) 0	0	0

Truck	Khulna City	Rupsa, Fakirhat, Rampal	Jessore, Northwest Area, Dhaka etc.	Satkhira etc.	Mongla port	Bagerhat, Barisal Division etc.	Mollahat etc.
Khulna City	18	32	542	223	84	49	2
Rupsa, Fakirhat,	27	0	0	2	30	27	45
Jessore, Northwest Area, Dhaka etc.	592	4	12	25	17	20	3
Satkhira etc.	178	3	112	3	0	0	6
Mongla port	35	30	23	5	0	16	0
Bagerhat, Barisal Division etc.	52	30	27	4	6	0	58
Mollahat etc.	5	68	2	7	0	5	C

All Vehicle Typ	e				·		
	Khulna City	Rupsa, Fakirhat, Rampal	Jessore, Northwest Area, Dhaka	Satkhira etc.	Mongla port	Bagerhat, Barisal Division etc.	Mollahat etc.
Khulna City	1990	129	etc. 2247	1360	242	130	38
Rupsa, Fakirhat,	133		19	8	164		
Jessore, Northwest	2160	11	27	63	44	37	4
Area, Dhaka etc.							
Satkhira etc.	1306					1	10
Mongla port	130			5	3	108	
Bagerhat, Barisal Division etc.	185	273	49	10	90	2	112
Moliahat etc.	24	363	2	8	2	29	0

Table F-8.3.3 Vehicle OD Tables in 1998 (2)

Motorcycle	e garage		-				
	Khulna City	Fakirhat,	Jessore, Northwest	Satkhira etc.	Mongla port	Bagerhat, Barisal	Mollahat etc.
	. *	Rampal	Area, Dhaka etc.			Division etc.	
Khulna City	150	53	182	367	66	32	9
Rupsa, Fakirhat,	<b>6</b> 5	0	9	0	1	:1	56
Jessore, Northwest	193	6	0	0	17	9	0
Area, Dhaka etc.							
Satkhira etc.	396	3	0	0	0	0	3
Mongla port	33	2	6	0	0	1	14
Bagerhat, Barisal Division etc.	61	1	6	0	0	0	43
Mollahat etc.	3	72	0	0	0	24	0

Auto Rickshaw		<del>,</del>			·	· 7	[
	Khulna City	Rupsa, Fakirhat, Rampal	Jessore, Northwest Area, Dhaka etc.	Satkhira etc.	Mongla port	Bagerhat, Barisal Division etc.	Mollahat etc.
Khulna City	1738	10		268	3	2	0
Rupsa, Fakirhat,	11	477	0	2	2	86	96
Jessore, Northwest	720	0	0	13	0	0	0
Area, Dhaka etc.						1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
Satkhira etc.	270	0	0	0	0	0	0
Mongla port	1	13	1	0	0	4	0
Bagerhat,	0	96	0	0	7	0	0
Barisal Division etc.							
Mollahat etc.	0	110	0	0	0	0	0

Car	Khulna City	Rupsa, Fakirhat, Rampal	Jessore, Northwest Area, Dhaka etc.	Satkhira etc.	Mongla port	Bagerhat, Barisal Division etc.	Mollahat etc.
Khulna City	62	20	269	206	55	24	2
Rupsa, Fakirhat,	12	0	8	1	22	13	33
Jessore, Northwest Area, Dhaka etc.	227	1	9	20	4	7	1
Satkhira etc.	146	0	45	3	1	1	1
Mongla port	37	23	2	0	0	17	0
Bagerhat, Barisal Division etc.	37	30	8	4	7	0	11
Mollahat etc.	5	43	0	1	2	0	0

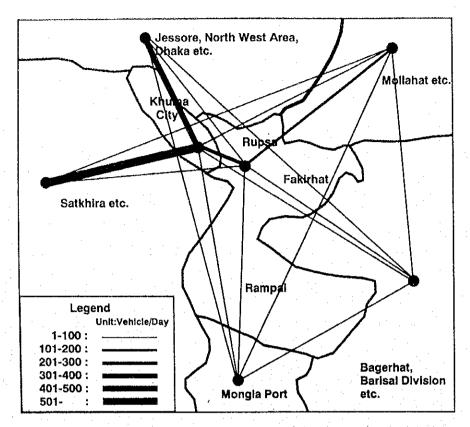


Fig F-8.3.1 Desire Line of Motorcycles in 1998

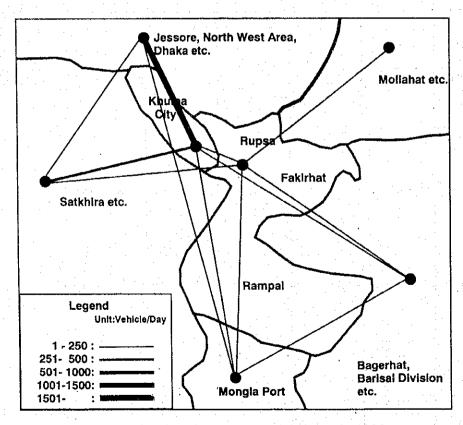


Fig F-8.3.2 Desire Line of Auto Rickshaws in 1998

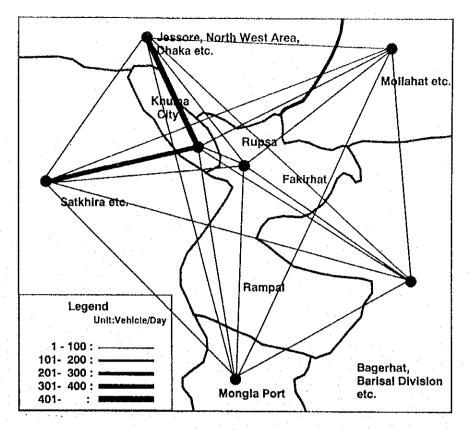


Fig F-8.3.3 Desire Line of Cars in 1998

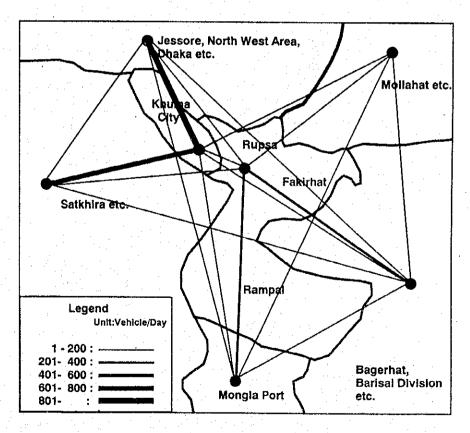


Fig F-8.3.4 Desire Line of Buses in 1998

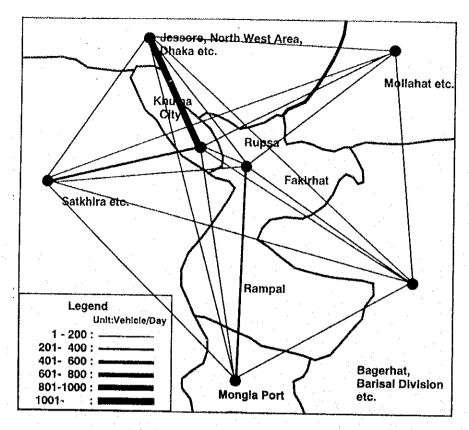


Fig F-8.3.5 Desire Line of Trucks in 1998

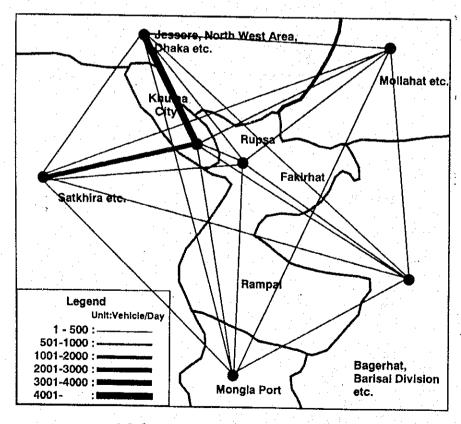
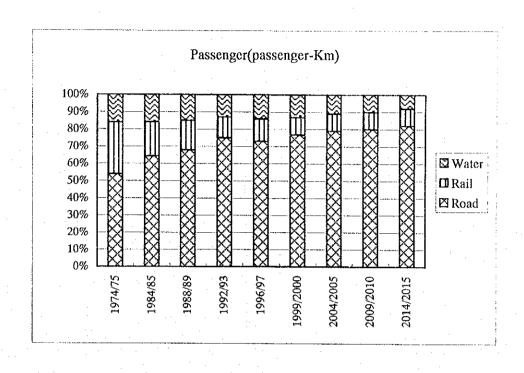


Fig F-8.3.6 Desire Line of All Vehicles in 1998



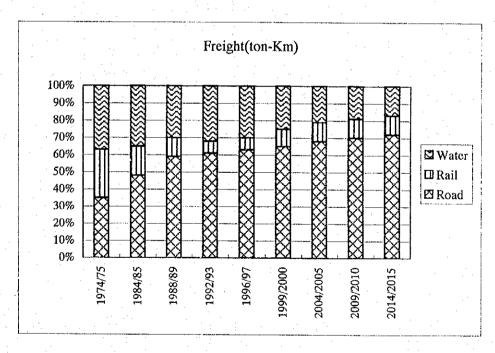


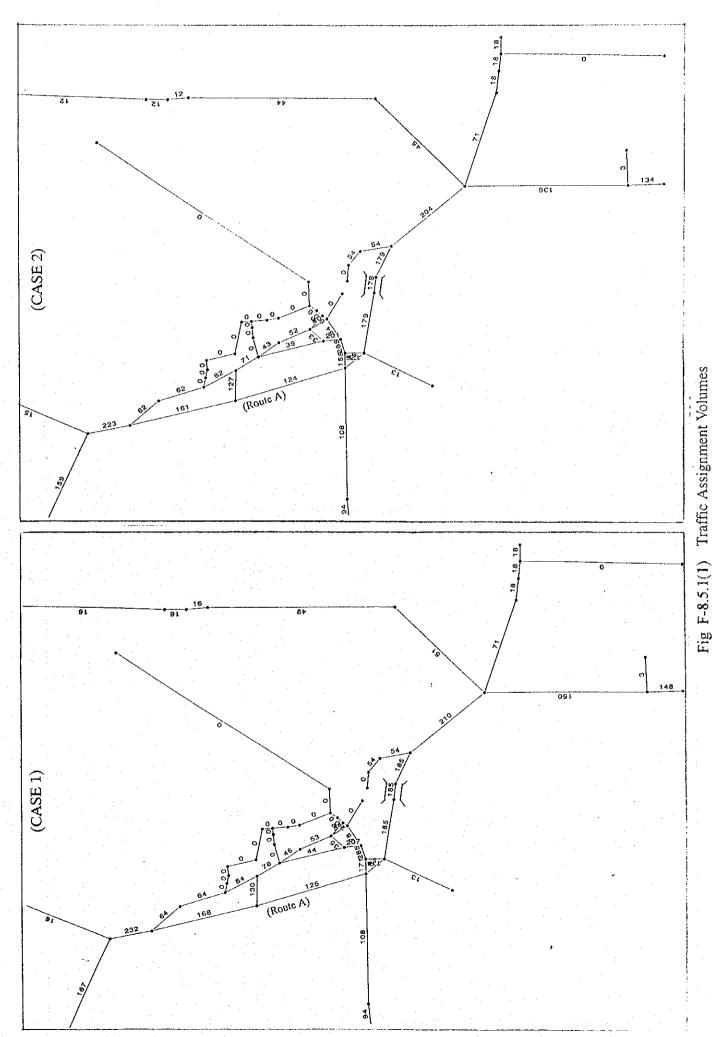
Fig F-8.4.1 Projected Modal Shares for Passenger and Freight Transport

Table F-8.4.1 Future OD Table

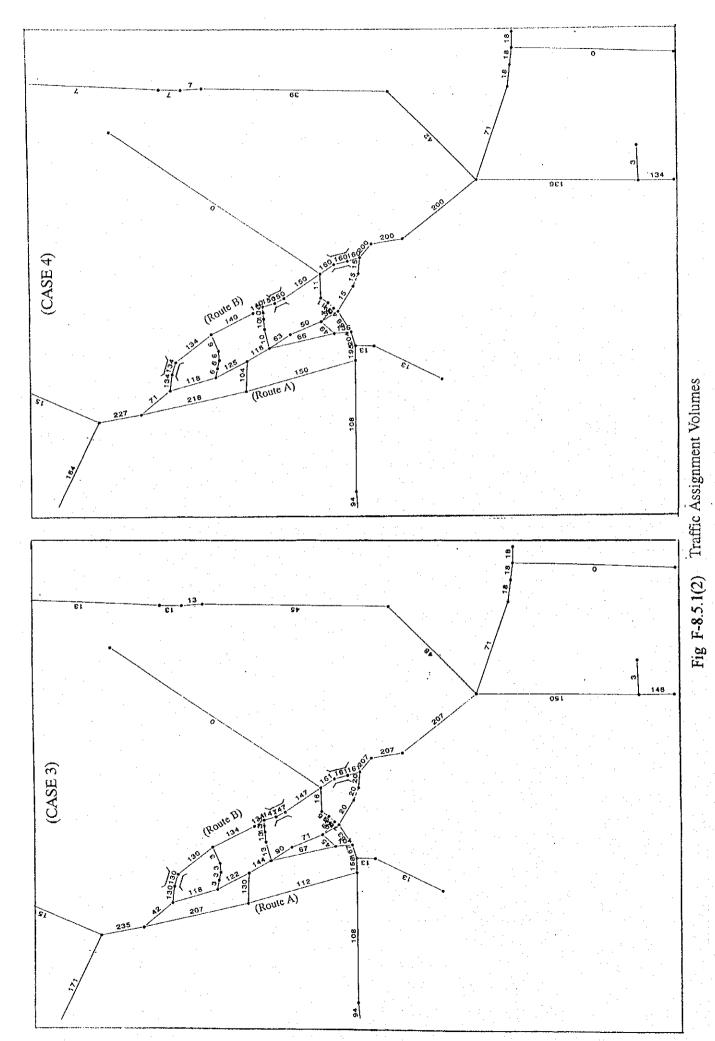
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71																		-									1		· .
91																													
52		83	153	23	0	0	0	c	0	c	0	6	<b>C</b>	6	c	O	14	4	C	0	0	0	<b>-</b>	0	C	0	0	995	
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13	2 0	9	0	c	0	n	0	0	0	0	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
12	÷ ;	376	5,	1764	n	0	c	0	0	다	0	<b>O</b>	0	6	0	0	54	0	<del>0</del>	С	55		0	25	0	0	c	2739	
= -	÷ 、	c	0	=	<b>-</b>	-	=	=	<b>-</b>	•	😄	0	=	0	<u> </u>	<b>c</b>	Đ	0	=	0	C	•	=	<u>-</u>		-	<u>-</u>	12	
2 2	2 5	332	99	148	317	÷	9	392	98	0	0	15	0	=	0	ťΩ	•	4	÷	¢	Ç	0	Ç	S.	0	0	0	1584	
6 3	9 }	1.76	ដ	Ξ	34	287	8.	38	С	145	С	c	0	0	0	0	53	۳	0	0	c	0	0:	0	0	0	c	1305	
× 510	o d	920	429	276	469	=	٧٦	96	=	317	e	36	0	=	=	=	vs	154	=	0	182	'n	36	213	- -	0	S	3953	
	;;	7	'n	23	c	0	0	33	c	0	0	0	<b>.</b>	0	0	<b>-</b>	0	0	0	0	¢	0	0	0	0	С	c	104	
93.	3 8	33	2	13	c	<b>.</b>	¢	20	C	<b>-</b>	0	ç	0	0	<b>•</b>	0	6	Ξ	c	0	0	. 91	c	0	0		C	280	
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4	<u>.</u>	334	103	131	192	11	13	261	141	210	<b>-</b>	794	0	%	112	121	490	931	192	0	546	3	15	0	c	0	0	4820	(uoi
	<b>&gt;</b> •	c	O	37	83	14	10	475	13	98	=	85	0	212	87	91	273	291	c	c	123	14	7,7	0	0	О	c	1844	tensi
2	= -	0	_	206	248	7	18	917	196	406	0	260	0	115	217	737	689	1141	55	0	433	92	152	28/	•	0	С	5802	/ay e>
	0	0	0	306	210	100	56	512	151	376	0	788	c	401	71	458	407	383	77	27	55	m	= .	19	0	c	0	4280	railw
H		71	m	4	2	9	7	90	6	91	Ξ	2	11	14	22	91	17	18	161	2	5	FI FI	53	75	52	5,2	27	1 otal	(with

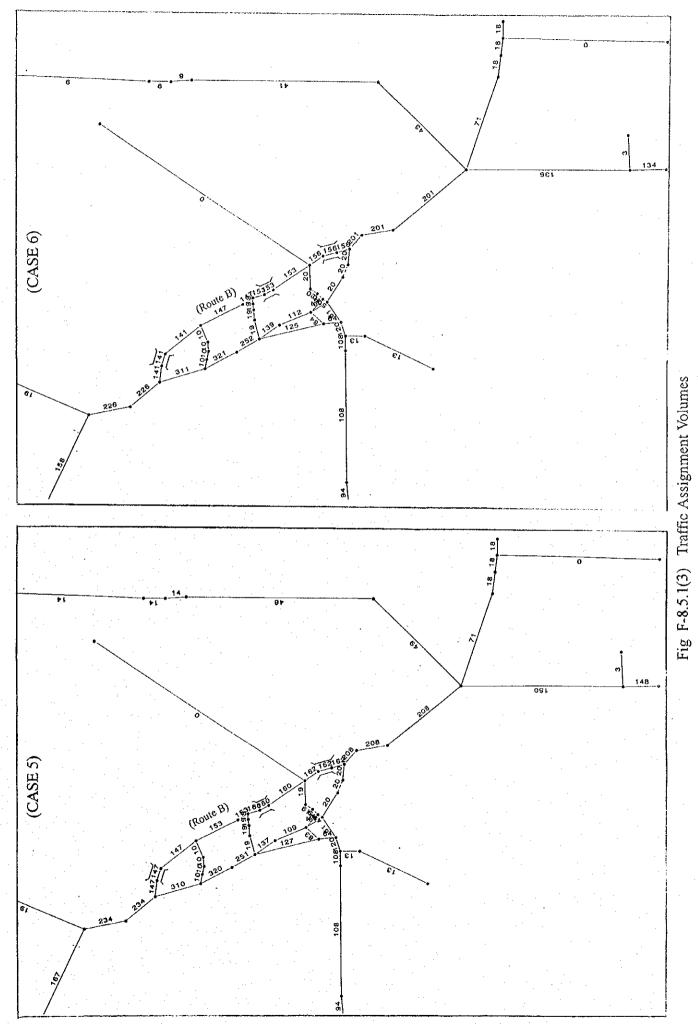
Total	4445	5583	1547	2402	1963	614	171	3422	1401	1977	c	2341	0	858	517	841	2363	3092	323	27	1301	161	525	183	0	0	0	39057
27	0	0	0	0	0	0	0	0	0	φ	0	0	0	0	0	0	c	<u>۵</u>	0	0	0	0	0	0	c	0	c	5
32	0	0	0	0	0	c	0	Ċ	Û	0	0	o	0	0	0	0	0	c	0	0	0	0	0	0	Ģ	c	0	۰
25	0	0	С		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0	၁	0	0	0	c	0	0
75	6	103	m	0	0	0	\$	55		12	. 0	С	0	0	0		0	0	0	0	0	0	0	0	O	0	0	187
23	43	103	33	ç	22	0	0	51	Þ	'n	0	<b>-</b>	C	0	0	0	0	17	0		24	0	0	0	c	c	Û	344
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	9		0	0	0	m	0	0	=	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	e.
12	413	376	26	1764	т	0	0	0	C	12	C	0	0	σ.	0	0	24	0	0	C	55	0	0	28	0	0	0	2739
-	٤	• •	2	0	0	0	0	C	C	0	c	0	0	0	0	c	0	0	0	0	0	<b>c</b>	c	0	c	C	C	12
2	35	352	99	148	317	0	0	392	2	0	0	15	0	0	0	m	0	47	0	0	0	0	0	9	0	0	0	1584
٦	18	176	1	113	44	287	8	38	0	145	0	0	0	0	0	0	53	m	0	0	0	٥	0	0	0	c	0	1305
×	2.5	020	420	276	469	0	<b>*</b> ^	00	0	317	0	56	C	0	0	<b>a</b>	'n	154	c	0	30	ζ.	36	25	0	0	0	3605
1	4	. 4	"	57	0	C	0	23	c	0	0	c	0	9	0	0	0	0	O	0	0	0	0	0	0	0	0	104
4	155		ç	13	0	a		) oc	0		0	9	· Q	C	C	0	6	Ξ		0	0	16	<u> </u>	0	0	0	0	280
-	12	. 551	oc	300	0	<b>-</b>	0	44	- 682	426		. 0	0	. 82	0	0			0	0	٠	20	35		0	0	0	2428
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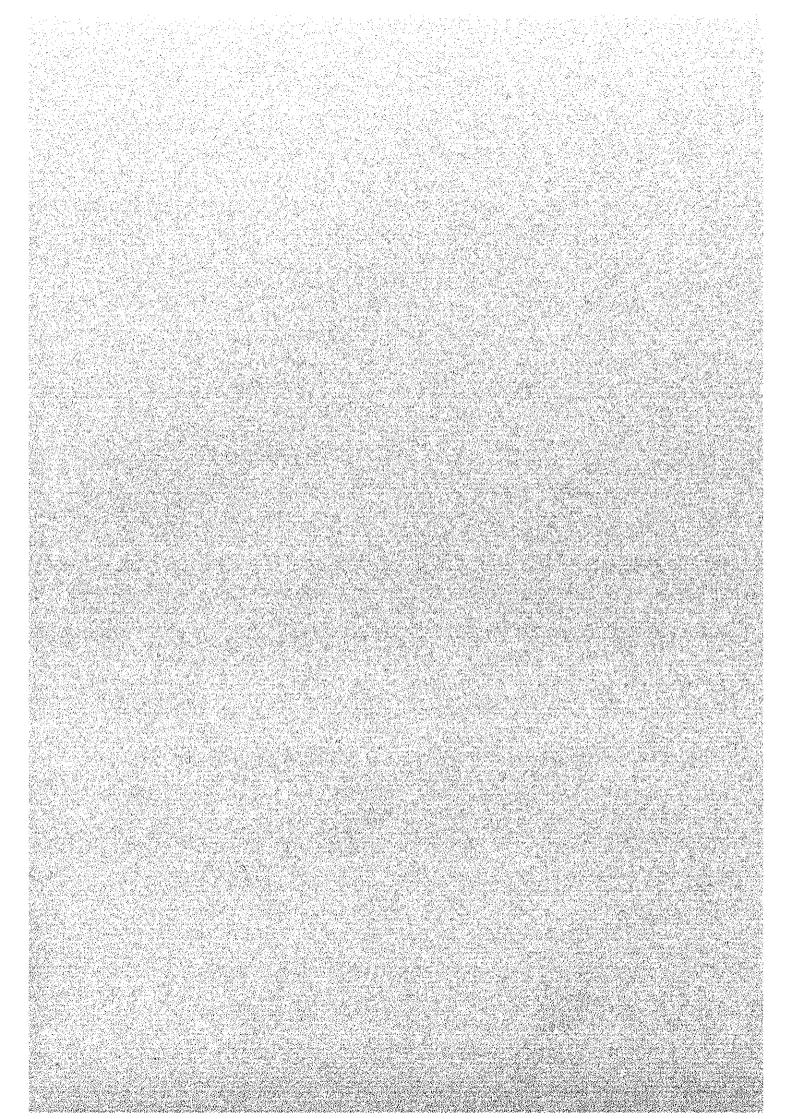


F-10



F-11

# APPENDIX G NATURAL CONDITIONS



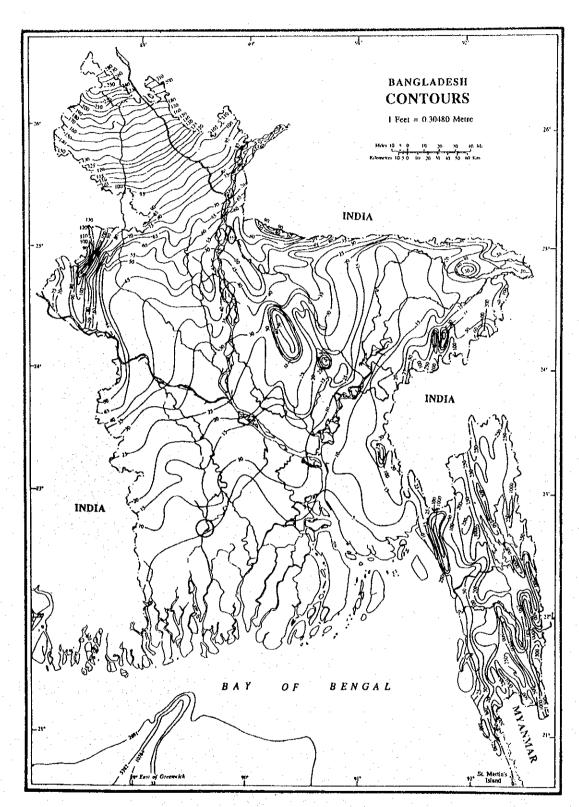
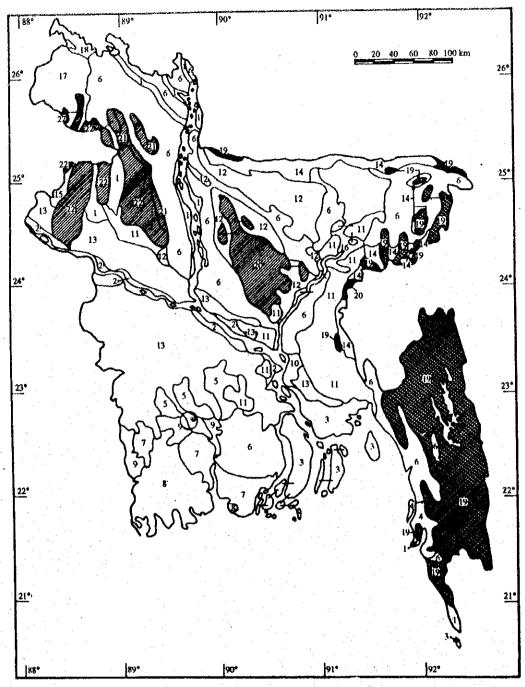


Fig. G-9.2.1 Bangladesh Contours (Graphosman World Atlas, 1996)



Legend for Figure

### A. Floodplain Areas

- Noncalcarcous Alluvium
   Calcarcous Alluvium (nonsaline)
- 3. Calcareous Alluvium (saline)
- 4. 'Acid Sulphate Soils
- Peat Soils
- 6. Noncalcareous Grey Floodplain Soils (nonsaline)
- Noncalcareous Floodplain Soils (saline)
  Noncalcareous Grey Floodplain Soils and Acid
  Sulphate Soils
- 9. Noncalcareous and Calcareous Grey Floodplain Soils
- Calcareous Grey and Noncalcareous Dark Grey Floodplain Soils
- 11. Noncalcareous Dark Grey Floodplain Soils

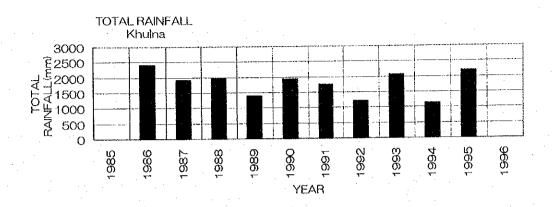
- 12. Noncalcareous Dark Grey and Grey Floodplain Soils
- Colcareous Dark Grey and Brown Floodplain Soils
   Grey Piedmont Soils and Noncalcareous Grey Floodplain Soils
   Acid Basin Clays
- 16. Acid Basin Clays and Noncalcareous Grey Floodplain Soils
- 17. Noncalcareous Brown Floodplain Soils 18. Black Terai Soils

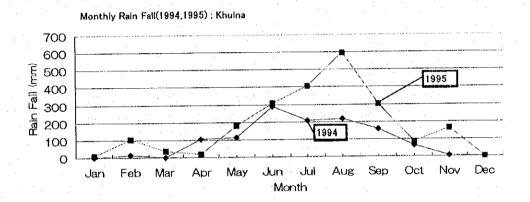
## B. Hill Areas

- 19. Brown Hill Soils
- C. Terrace Areas
- 20. Deep Red-Brown Terrace Soils21. Deep Red-Brown and Grey Terrace Soils
- 22. Deep and Shallow Grey Terrace Soils

Fig. G-9.2.2 Generalized Soil Map

(Hugh Brammer: The Geography of the Soils of Bangladesh, University Press, 1996)





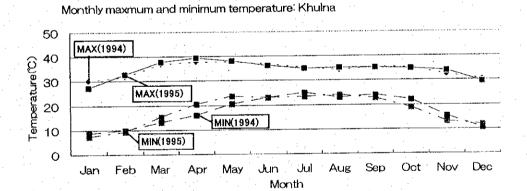


Fig. G-9.2.3 The Climatic Changes in Khulna City

Table G-9.2.1 Climatic Data

Name of station: Khulna

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Total Rainfall (mm)	N.A.	2415	1922	1955	1402	1938	1760	1218	2079	1130	2205	N.A.
Max. Temperature (°C)	N.A.	38.7	38.9	38.6	37.4	37.0	37.0	38.7	36.5	37.8	39.4	N.A.
Min. Temperature (°C)	N.A.	8.0	8.3	7.5	7.4	7.7	8.4	8.0	7.0	8.6	7.3	N.A.
1994/1995	Jan	Feb	Mar	Apr	May	Jun	Jul	Àug	Sep	Oct	Nov	Dec
Monthly Rain fall (1994)	- 1	15	0	105	115	289	210	217	160	63	- 5	Λ
		, ~[	. 4	100	וטוו	2.00	2101	6.17	100	0.01	ו י	v
(mm) (1995)	8	104	34	18	181	308	407	594	303	86	162	0
Max. Temp. (1994)	8 30.2	}	· *1		1		1				162	0 30.4
Max. Temp. (1994) (°C) (1995)		104	34	18	181	308	407	594	303	86	162 32.4	
Max. Temp. (1994)	30.2	104 31.6	34 36.7	18 37.8	181 37.7	308 37.0	407 35.1	594 34.3	303 35.5	86 35.4	162 32.4 34.0	0 30.4 29.6 10.6

Source: Bangladesh Meteorological Department

N.A.: Not Available

Table G-9.2.2 Weather Data Source

Government of The People's Republic of Bangladesh Bangladesh Meteorological Department (Climate Division). Meteorological Complex Agargaon, Dhaka—1207.

Tel: 9111942

Table G-9.2.3 The Major Cyclone Attacked Bangladesh

14010 0 7.2.3 1110	iviajoi Cyclone Ati	acked Dangladesii
Date	Maximum (km/hr)	Stom Surge- height (m)
10/30/60	211	4.6 ~6.1
05/30/61	146	6.1 ~8.8
05/28/63	203	4.2 ~5.2
05/31/65		6.1 ~ 7.6
12/14/65	211	4.6 ~6.1
10/01/66	146	4.6 ~9.1
0.5/07/70		3.0 ~4.9
11/12/70	227	6.1 ~9.1
05/25/85	154	3.0 ~4.9
11/29/88	150	3.0 ~4.0
04/29/91	225	6.0 ~ 7.5

Source: Choudhury 1987, 1991 and Bangladesh Meteorological Department 1988.

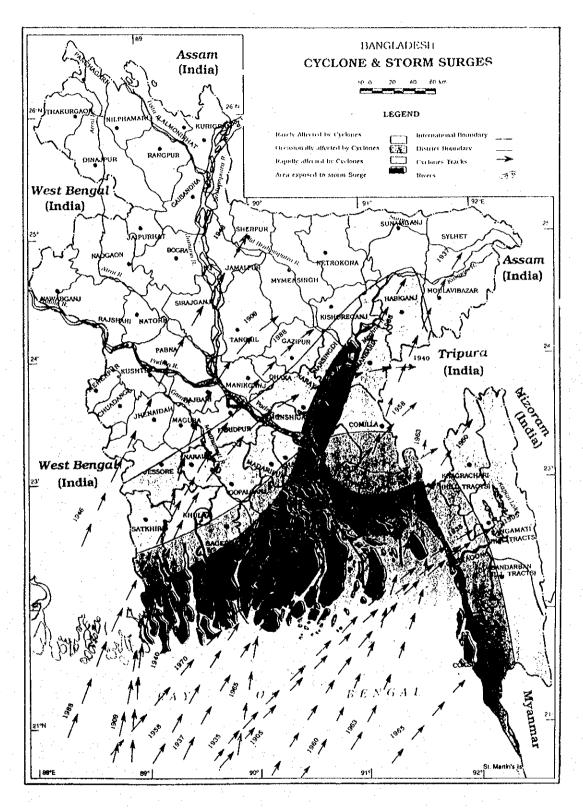


Fig. G-9.2.4 The Courses of Cyclone Striking Bangladesh (Jahan Atlas, 1997)

## SEISMIC ZONES OF BANGLADESH

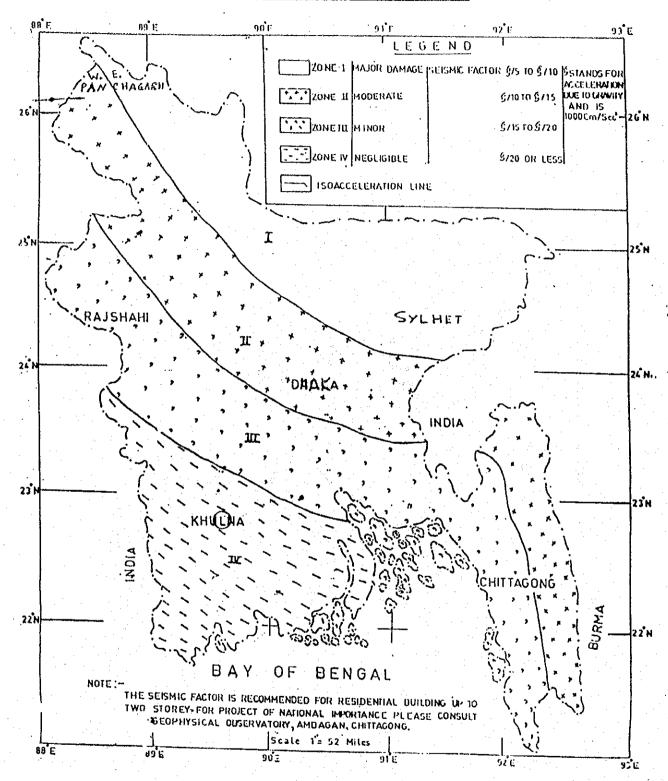


Fig. G-9.2.5 Seismic Zones of Bangladesh (Meteorological Department)

Client: Mongla Port Authority Project: Mongla Port Development Study Location:Bridge on Rupsha River Labanchara, Khulna Bore chart of Boring No: BH 1		SOI	L CO	Jano	LΤΆ	\NT:	S &	DRILL	ERS	
METHOD OF BORING : WASH BORING DIAMETER OF BORING : 100 mm RL OF BORE HOLE : 3.620 m		3 C	OMPI	ETE	D :	: 24	4.0	5.95 5.95 ON 25.	05.9	5
DEPTH IN METER STRATA ENCOUNTERED	LOG	NO	S.P. OF 0 20	BLC	)WS,	/0.:	3M	DEPTH IN METER	SAM	IL PLE PE
1.50	×  			3				1.50	D1	Wile
3.00	x_x			2				3.00	D2	
qu = 15 kpa, Es = 2.5 x10 Mpa LL = 46, PL = 38, PI = 8 1-80-19	×  × ×			2				4.50	Ul D3	
LL = 32.9, PL = 24.5, PI = 8.4 6.00-Brownish grey clayee SILT	 × ×			2				6.00	U2 D4	***
7.50	X X			1				7.50	D5	
9.00	, x , x			6				9.00	D6	
10.5	. × ×			9				10.50	DΫ	W
12.0	* .				15			12.00	D8	
13.5 Grey sandy SILT 32-60-8	. x				16			13.50	D9	W
15.0	x x				17			15.00	Dlo	W
16.5	 X .x		'		20			16.50	Dll	
18.0-	* · x			$ \rangle$		27		18.00	D12	W
19.5-	, x , x		,		19			19.50	D13	
NOTE: UNDIST. SAMPLE DIST SAMP	<u>                                     </u>	<u> </u>	1	<u> </u>			<u> </u>		<u> </u>	

Fig. G-9.3.1 Drilling Log Map at Rupsa Bridge Site (1)

Projec Locati	: Mongla Port Authority t: Mongla Port Development Study on:Bridge on Rupsha River Labanchara, Khulna hart of Boring No: BH 1 (contd)	\$	8011	. cc	nst	JL.T?	ANTS	8 &	DRILLI	ers
DIAMET	OF BORING: WASH BORING PER OF BORING: 100 mm BORE HOLE: 3.620 m	DATE DATE GR.	C C	MPI	ETE	ED :	24	1.05		05.95
DEPTH IN METER	STRATA ENCOUNTERED	LOG	NO	OF 20	BLO	)WS,	/0.3	3 <b>M</b>	DEPTH IN METER	SOIL SAMPLE TYPE
19.5	Grey silty SAND with clay	× .			19				19.50	D13 🍿
21.0		× :			14				21.00	D14
22.5	Grey silty Fine to Medium SAND	, x .				22			22.50	D15 🎢
24.0-	70-26-4	. x-				25			24.00	D16 🌉
25.5	Grey silty SAND with mica	, X ,M		/		25			25.50	D17
27.0-		. y . x		<	12				27.00	D18 🌇
28.5-		× .			-		h	42	28.50	19 🌉
30.0-	Grey silty FINE SAND	. × .					 	43	30.00	D20 🌉
31.5-		X X						45	31.50	D21 🌉
33.0-	Grey silty CLAY	 K					_	35	33.00	D22
34.5		: x :		<		15			34.50	D23 🌉
36.0-	61-37-2	x: x						53	36.00	D24
37.5—	Grey silty FINE SAND	x ,						54	37.50	D25
39.0-		* * *						65	39.00	D26
NOTE:	UNDIST. SAMPLE DIST.	SAMPI	Œ	<b>22</b>	لسا	L		<u> </u>	1	<u> </u>

Fig. G-9.3.1 Drilling Log Map at Rupsa Bridge Site (2)

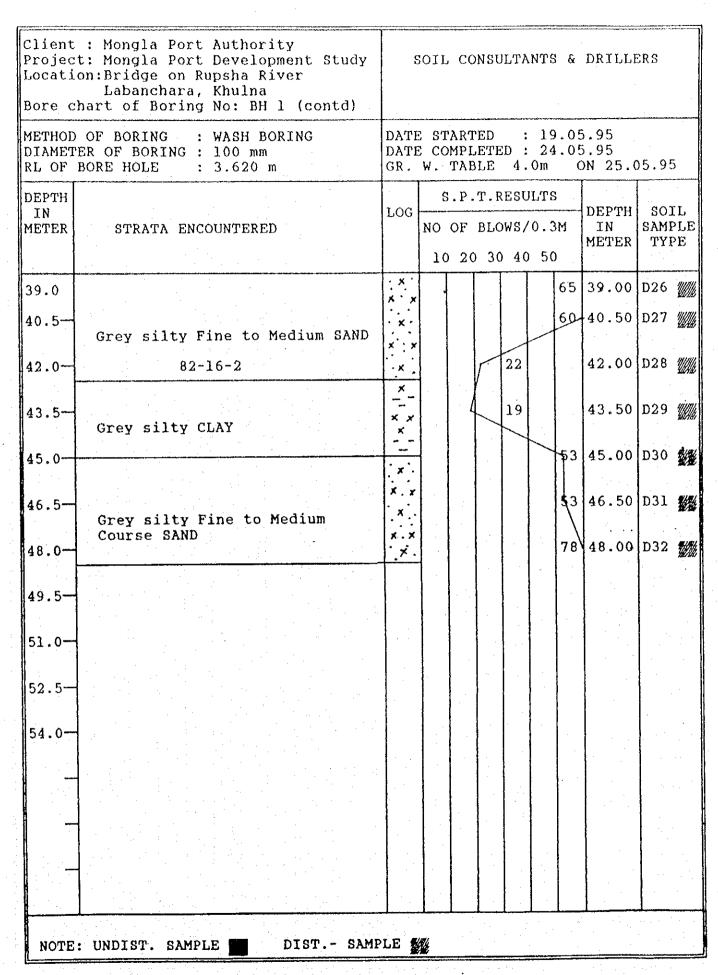


Fig. G-9.3.1 Drilling Log Map at Rupsa Bridge Site (3)

Client : Mongla Port Project: Mongla Port Location:Bridge on F Boring in r Bore chart of Boring	t Development Stud Rupsha River river	dy S	OIL	CON	SUL	TAI	NTS	&	DRILLE	CRS			
NAMETER OF BORING :	: WASH BORING : 100 mm : -8.00 m	DATE	STA COM	PLE	TED	:	31	.05	5.95 5.95 N 31.05	5.95			
DEPTH IN METER STRATA ENG	COUNTERED	LOG	LOG S.P.T.RESULTS DEPTH IN METER										
00.0		. x			8				1.50	מ	W		
3.00-		. x . x		\	4				3.00	D2			
4.50 95. Grey silty	7-4.3-0 FINE SAND	. x		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	.6				4.50	D3	<b>W</b>		
6.00		. x			•	22		:	6.00	D4	<b>2</b>		
7.50		* X			2	21		. 10	7.50	D5	<b>1</b>		
9.00		x . x			!	22			9.00	D6	14		
10.5 96.	5-3.5-0	× .				22	:		10.50	D7	1/2		
12.0		 * x		<b>/</b>  ;	2				12.00	D8	The state of the s		
13.5- Grey SILTY	CDAY	×			10				13.50	D9	W		
15.0-		×  ××			13				15.00	D10			
16.5 Grey SILTY	CLAY with sand	: x ·			14				16.50	D11	<b>W</b>		
18.0- Grey organi	c CLAY with peat			:	13				18.00	D12	2 1/2		
19.5					12	• .			19.50	D13	<b>2</b>		

Fig. G-9.3.1 Drilling Log Map at Rupsa Bridge Site (4)

NOTE.	UNDIST. SAMPLE DIST.	SAMPI	LE I										
39.0													
37.5-													
36.0													
34.5													
33.0-		· x :	}					165,	33.00	D22 🌠			
.		x . x							0.0				
31.5		x.						\$2	31.50	D21 🐉			
30.0	Grey silty FINE SAND	××	:						30.00	D20 <b>2</b>			
30 A	Chart wilter DIND GAND	X, X	i		:			[	20 00	naa #/			
28.5		×:						5	28.50	D19 🚪			
41.0		x - x							27.00	DIO W			
27.0-		, x .						 	27.00	חופ שיי			
25.5		XX						49	25.50	D17 🐉			
	Grey clayee SILT	× ×						<b> </b>					
24.0-	8-67-25						<b>\</b>	52	24.00	D16 7/			
22.5		۸.			<		21		22.50	D15 🎇			
	Grey silty FINE SAND	×. ×								42/			
21.0-	95-5-0	: X : .					34		1	D14 7%			
19.5		==			12	<u>-</u> `	<u> </u>	<u> </u>	19.50	D13 🎇			
	SAMIAN SHOOTHAMAD	 	1	) 20					METER	TYPE			
DEPTH   IN METER	STRATA ENCOUNTERED	LOG		OF		· · · · · · · · · · · · · · · · · · ·	<del> </del>	a NAME - I bour	DEPTH IN	SOIL			
RL OF	ER OF BORING: 100 mm BORE HOLE: -8.00 m		√. <sup>7</sup>	PABI	Ε.	5.95 N 31.0	5.95						
	OF BORING : WASH BORING								5.95				
	on:Bridge on Rupsha River Boring in river hart of Boring No: BH 2 (contd)												
rojec	: Mongla Port Authority t: Mongla Port Development Study	3	OII	C CC	onst	JLT	NT	S &	DRILL	DRILLERS			

Fig. G-9.3.1 Drilling Log Map at Rupsa Bridge Site (5)

rojection	: Mongla Port Authority t: Mongla Port Development Study on:Bridge on Rupsha River Jabusha, Khulna hart of Boring No: BH 3	S	orr	co	NSU	LTAI	NTS	&	DRILLE	RS	
DIAMET	OF BORING : WASH BORING ER OF BORING : 100 mm BORE HOLE : 3.945 m	DATI DATI GR.	CO	MPL	ETE		06	.06	.95 .95 ON 06.0	16.95	
DEPTH IN METER	STRATA ENCOUNTERED	LOG	NO	OF	T.R BLC	WS/	0.3	М	DEPTH IN METER	SOII SAMPI TYPI	LΕ
00.0								,			.*
1.50-		X x			1				1.50	D1	W
3.00-		× ×			1				3.00	D2	
4.50-	Grey CLAYEE SILT	× ×			2			÷	4.50	D3	W
6.00-	1-74-25	X 			2			:	6.00	D4	<b>4</b>
7.50-		X X  X X			5			-	7.50	U1 D5	¥.
9.00-		X			6				9.00	D6	
10.5-		x x			19				10.50	<b>D</b> 7	*
12.0-		× .				20			12.00	D8	<b>W</b>
13.5		X .3				26			13.50	D9	#2
15.0-		x x					34		15.00	DlO	<b>%</b>
16.5-		×				25			16.50	D11	<b>2</b>
18.0-	Grey silty FINE SAND 56-40-4	×				25			18.00	D12	<b>%</b>
19.5-		× ,				27			19.50	D13	*
		× . ,									

Fig. G-9.3.1 Drilling Log Map at Rupsa Bridge Site (6)

Projec Locati	: Mongla Port Authority t: Mongla Port Development Study on:Bridge on Rupsha River Jabusha, Khulna hart of Boring No: BH 3 (contd)		SOI	r co	ONS	JLT)	ANT	S &	DRILL	ERS
DIAMET	OF BORING : WASH BORING PER OF BORING : 100 mm BORE HOLE : 3.945 m		C C	OMPI	ETI	ΞD	: 00	5.00	6.95 6.95 ON 06.0	06.95
DEPTH IN METER	STRATA ENCOUNTERED	LOG	NO	S.P. OF 0.20	BLO	ows,	/0.3	3M	DEPTH IN / METER	SOIL SAMPLE TYPE
19.5 21.0- 22.5-		X , X , X , X , X , X , X , X , X , X ,				27 29	73 i		21.00	D13 WW
24.0— 25.5—	Grey sandy SILT	X . x . x X .			-		30 32			D16 7
27.0— 28.5—	39-55-6	XX					36	40	28.50	D18
31.5-		* x			13				31.50	D20 <b>2</b> 2 <b>2</b> 2 <b>2</b> 2
34.5— 36.0—	Grey silty CLAY	X X X x			12				34.50	D23 ///
37.5— 39.0—	0.5-72-27.5 Gray alayse SIJT	x x x			12	27			37.50	D25
	0.5-72-27.5 Grey clayee SILT  UNDIST. SAMPLE DIST.	, , , , , , , , , , , , , , , , , , ,	E			27			39.00	D26 🜠

Fig. G-9.3.1 Drilling Log Map at Rupsa Bridge Site (7)

Projec Locati	: Mongla Port Authority t: Mongla Port Development Study on:Bridge on Rupsha River Jabusha, Khulna hart of Boring No: BH 3 (contd)	ć	ori	. cc	onst	JLTA	NTS	8 &	DRILLI	CRS		
DIAMET	OF BORING: WASH BORING PER OF BORING: 100 mm BORE HOLE: 3.945 m	DATE STARTED : 03.06.95 DATE COMPLETED : 06.06.95 GR. W. TABLE 3.2m ON 06.06.95										
DEPTH IN METER	STRATA ENCOUNTERED	LOG	NO	OF 0 20	BLO	OWS,	/0.3	3 <b>M</b>	DEPTH IN METER	SOIL SAMPLE TYPE		
39.0 40.5		x . x				27	31		39.00 40.50	14711		
42.0-		* · x · x :							42.00	www.		
45.0-		x . x								D30		
46.5— 48.0—	Grey silty FINE SAND	× . x					_			D31 #		
49.5-		* * * * * * * * * * * * * * * * * * *						64	49.50	D33 🌌		
51.0— 52.5—	40-57-3	* .x								D34 //		
54.0-		X .×,										
NOTE:	UNDIST. SAMPLE DIST SAMP	LE 🌉	<u> </u>									

Fig. G-9.3.1 Drilling Log Map at Rupsa Bridge Site (8)