

APPENDIX-3.4.4 Basic Labour Cost in local

UNIT COST OF LOCAL LABOUR

Unit: Taka/8 hour per day

No	Kind of Work	Direct Cost	Indirect Cost	Total
1	Foreman	300.00	75.00	375.00
2	Carpenter	200.00	50.00	250.00
3	Concrete Finisher	200.00	50.00	250.00
4	Steel Fixer	200.00	50.00	250.00
5	Labour	80.00	20.00	100.00
6	Plant Operator	300.00	75.00	375.00
7	Driver	250.00	62.50	312.50
8	Plumber	200.00	50.00	250.00
9	Scaffolder	200.00	50.00	250.00
10	Piling Crew	200.00	50.00	250.00
11	Banksman	200.00	50.00	250.00
12	Captain	300.00	75.00	375.00
13	Sailor	200.00	50.00	250.00

Source: BINTA

UNIT COST OF FOREIGN LABOUR

Unit : ¥/8 hour per day

No	Kind of Work	Direct Cost(¥)	Remarks
1	Special Labour	36,000	Overseas Allowance included
2	Slinger	36,700	ditto
3	Electrician	36,100	ditto
4	High Grade Sailor	40,400	ditto
5	Diver	58,000	ditto

Source: KENSETSU BUKKA, June 1990

APPENDIX-3.4.5 List of Available Equipments and Vehicles in local

No	Name of Equi't	Type & Capacity	Quantity
1	Bulldozer	CAT-D5B (Japan) 105 h.p	9
2	Tyre Dozer	CAT-814 (U.S.A) 210 h.p	2
3	Scraper	CAT-613 (U.S.A) 150 h.p	2
4	Compactor	CAT-814 (U.S.A) 210 h.p	2
5	Tyre Compactor	(U.S.S.R) 35 ton	1
6	Excavator	CAT-215 (Belgium) 1.25 cu.yd	2
7	Pay-Loader	CAT 1.25 cu.yd	4
8	Hydraulic Ladder Carrier	Mitsubishi (Japan) 28 ft	8
9	Mobile Generator	(Japan) 5.0 KVA	1
10	Mobile Generator	(U.S.A) 3.3 KVA	1
11	Power Trailer	(U.S.S.R) 30 ton	1
12	Tyre Finishing	(Japan) 8 Wheel	2
13	Diesel Dump Truck	Mitsubishi Tilting Type 5 ton	4
14	Petrol Dump Truck	(U.S.S.R) 5 ton	6
15	Paver Machine	(U.S.S.R/U.K) 30 ton	2
16	Tractor	240 Massy Fargoson (Japan) 45 h.p	1
17	Mini Asphalt Plant	(Japan) 1.5 ton	1
18	Asphalt Plant	(U.S.S.R) 30 ton	1
19	Asphalt Plant	(Poland) 20 ton	1
20	Mixture Machine	3,3 cu.yd	6
21	Road Roller	(Denmark/U.S.S.R/Japan) 3-10 ton	28
22	Light Transport	Car, Jeep, Toyota, Mazda., etc.	33
23	Diesel Trucks	Mitsubishi (Japan) 5 ton	58
24	Ditto	Bedford (U.K) 5 ton	10
25	Ditto	Mitsubishi (Japan) 3 ton	48
26	Ditto	Isuzu (Japan) 3 ton	20
27	Diesel Mini Truck	Mitsubishi (Japan) 1.5 ton	25
28	Others		

APPENDIX-3.4.6 List of B.I.W.T.A's Cutter Suction Dredgers

No	Name	Type	Capacity of Engine(hp)	Max-Dredging Depth(m)	Max-Dredging Width(m)
1	KHANAK	Diesel	850	11.0	32.0
2	DELT-I	Diesel	1165	14.0	35.0
3	DELT-II	Diesel	1165	14.0	30.0
4	D-135	Diesel	1100	9.0	30.0
5	D-136	Diesel	1200	9.0	30.0
6	D-137	Diesel	1200	13.0	35.0
7	D-138	Diesel	1200	13.0	35.0
8	D-139	Diesel	1200	13.0	35.0

Appendix-3.4.7 Unit Cost of Work

NO	WORK	UNIT	QUANTITY	UNIT COST		TRANSPORTATION		TOTAL COST		REMARKS
				FOREIGN(TK)	LOCAL(TK)	FOREIGN(+1000TK)	COST (+1000TK)	FOREIGN(+1000TK)	LOCAL(+1000TK)	
I LAND RECLAMATION										
1	Land Reclamation	cu. m	1,116,000	9	59	10,551	0	10,551	65,844	
2	Improving Site Soils	m	89,700	313	478	28,073	497	28,570	42,877	
	Sub Total							39,122	108,721	
II WHARF & REVETMENT										
1	Steel Sheet Pile Driving	m	2,750	2,888	205	7,943	280	8,223	564	crane/S. plit
2	Excavation for Base	cu. m	4,100	0	50	0	0	0	205	
3	Riprup of rubble stone	cu. m	10,780	0	1,140	0	0	0	12,289	
4	Trimming of rubble stone	sq. m	4,030	1,406	346.8	5,666	0	5,666	1,398	
5	Production of L-shaped C-Block	m	195	20,117	13,761	3,923	184	4,107	2,683	crane
6	Installation of L-C-Block	m	195	6,538	427	1,275	301	1,576	83	
7	Production of Celler Block	cu. m	97	249	5983.5	24	24	48	580	C-plant
8	Installation of Celler Block	no	12	16,347	1066.4	196	0	196	13	
9	Bag Concrete c=180kg/sq. cm	cu. m	53	1,910	4850	101	24	125	257	
10	Backfilling of Brick chips	cu. m	9,200	0	1447	0	0	0	13,312	
11	Trimming of Brick chips	sq. m	2,850	0	16	0	0	0	46	
						19,128	813	19,941	31,430	
12	Cast-in-situ RC Pile	no	223	78,612	199,394	17,688	402	18,090	44,864	
13	Beam Concrete c=240kg/sqcm	cu. m	2,686	320	9775	860	130	990	26,256	C-plant/C-pur
14	Slab Concrete c=210kg/sq. cm	cu. m	2,276	320	8702	729	130	859	19,806	
15	Fabrication/Removal of Form	sq. m	13,186	516	124	6,799	0	6,799	1,635	
16	Installation of Iron Rail	t	180	14,132	704	2,544	312	2,856	127	
17	Installation of Bollard 15t	no	12	1,891	58265	23	0	23	699	
18	Installation of Rubber	no	36	188,424	6784	6,711	25	6,736	244	
19	Pavement of Apron	sq. m	6,600	468	10	3,090	0	3,090	66	
	Sub Total					38,444	999	39,443	93,697	
						57,572	1,812	59,384	125,127	
III MARSHALLING YARD & PORT ROAD										
1	Pavement of M-Yard	sq. m	34,515	489	1184	16,885	225	17,110	40,866	As-plant/Fir
2	Pavement of Port Road	sq. m	32,989	391	947	12,906	150	13,056	31,237	ditto
	Sub Total							30,166	72,103	
IV ACCESS ROAD										
1	Embankment of A-Road	cu. m	406000	26	48.35	10,470	188	10,658	19,631	
2	Pavement of A-Road	sq. m	23400	388	671	9,076	0	9,076	15,701	
	Sub Total							19,734	35,332	
	Total							148,406	341,283	

Appendix-3.4.8 Taxes & Duties on Goods

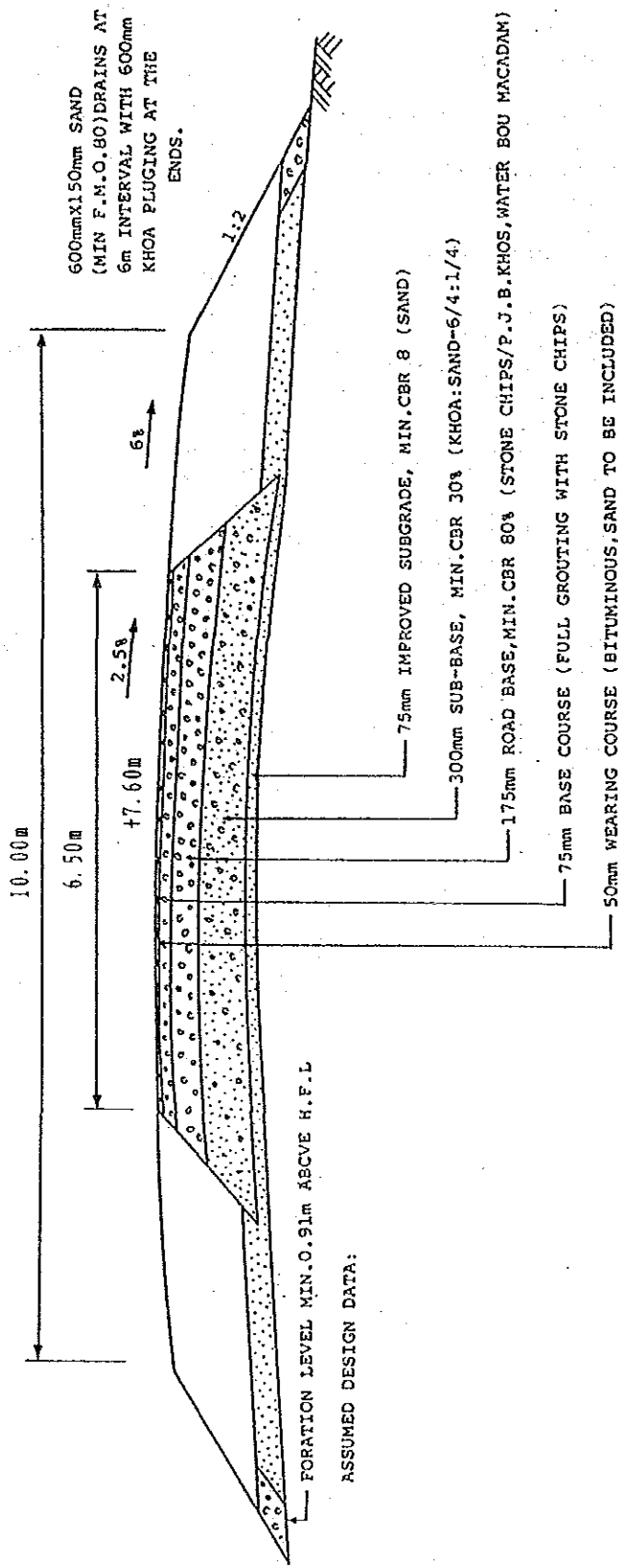
COMMODITY		Taxes & Duties
Equipment	Gantry crane	0.37
	Straddle carrier	0.93
Vehicle	Forklift	0.93
	Forklift(knock-down)	0.57
	Tractor head	0.28
	Tractor head(knock-down)	0.18
	Chasis	1.53
	Truck	0.57
	Truck(knock-down)	0.23
Train	Wagon	0.57
	Engine for train	0.57
Vessel	Vessel	0.57
Utility	Electrical lighting	1.53
	Transformer	0.93
	Pump	0.93
	Truck scale	0.93
Raw material	Cement	0.33
	Stone	0.45
	steel sheet	0.69
	Steel sheet pile	1.53
	Angle, shapes of iron	1.53
	Rail	0.57
	Crude oil	0.13
	Petroleum oil	0.13
	Asphalt	1.53
	Wood sawn, or sliced	0.23
Fender	1.53	

Taxes and Duties are divided into National and Local Taxes.

National Taxes consist of Custom Duty, Development Surcharge Tax and Sales Tax.

Local Taxes consist of Import Permission Fee and Advanced Income Tax., etc.

Appendix-3.4.9 Typical Section of Access Road



ASSUMED DESIGN DATA:

Daily Traffic each Way: 2,045 Vehicles (1,139 on an Average) in target year of 2005

Hourly Traffic each Way: 327 Vehicles (95 on an Average) in target year of 2005

NOTE: The pavement design is for the purpose of preparation of schemes only. Detailed design should be properly made on actual site conditions for individual section before construction.

コンテナ危険物明細書

SHIPPING LIST OF DANGEROUS GOODS IN CONTAINER

1. Container Number & Operator	コンテナ番号及び行先会社 Container Number & Operator	コンテナ番号(Container Number)	行先会社名(Consumer Operator)
2. Ship's Name & Voy. No.	船名及び航路番号 Ship's Name & Voy. No.	船名(Ship's Name)	航路番号(Voy. No.)
3. Loading/Discharging port	積荷港/積荷港 Loading port/Discharging port	積荷港(Loading port)	積荷港(Discharging port)
4. Description of Goods	危険物の品名 Description of Goods		United Nations No.
5. Number of Packages	危険物の個数 Number of Packages		
6. Kind of Packages	危険物の包装形態 Kind of Packages		
7. Weight	重量 Weight	毛重(Gross) kg	淨重(Net) kg 元包装(Powder) kg
8. Measurement	寸法 Measurement		
9. Classification	危険物の分類 Classification		
10. INCO Classification	危険物の分類 INCO Classification		
11. Shipper's Name, Address & Nature of property	発出者の氏名、住所、物の性質 Shipper's Name, Address & Nature of property		
12. Consigner's Name & Address	荷受人の氏名、住所 Consigner's Name & Address		

We hereby declare that the Receipts, Packing, Labelling, Declaration, Packing arrangement as container and Declaration of container for the above mentioned dangerous goods are in compliance with the Rules for the Carriage of Dangerous Goods in Ship, and that the Goods and Container are in suitable condition for carriage at sea.

署名 (Signature)

① 発出者(Shipper)の責任において行われなければならない。
② Shipper's packの場合にはコンテナには、Carrier's packの場合とは異なる記載事項がある。

Form No. 011078

EQUIPMENT RECEIPT (船積受取書)

CARRIER RECEIVED FROM (船主)

IN (輸入)

DATE AND TIME (日時)

STATUS (状況)

LOADED (積荷) EMPTY (空)

RECEIVED (受取) RETURNED (返却)

REPAIRED (修理) BY OTHER (その他)

OTHER PURPOSE (その他)

FROM SHIPPER (船主) FROM CFS (船積)

EMPTY (空) REPAIRED (修理)

IMPORTER (輸入者) EXPORTER (輸出者)

FEELER (検針機)

LOADING VESSEL & VOLTAGE (積荷船名 & 電圧)

DECHARGING PORT (積荷港)

INSPECTION AT THE TIME OF RECEIPT (受取時検査)

CONTAINER CONDITION (コンテナ状態)

CLEAN (清潔) TO BE CLEANED (清掃が必要)

DEFECTIVE (不良) SOUND (正常)

REMARKS (備考)

Left Side (左側) Right Side (右側)

Top (上) Bottom (下)

Front (前面) Rear (後面)

Front Door (前面扉) Rear Door (後面扉)

Top Door (上扉) Bottom Door (下扉)

Front Lock (前面ロック) Rear Lock (後面ロック)

Top Lock (上扉ロック) Bottom Lock (下扉ロック)

Front Seal (前面シール) Rear Seal (後面シール)

Top Seal (上扉シール) Bottom Seal (下扉シール)

Mark clearly all damages or deficiencies found by symbol (発見された損傷または不足は記号を付けて明記して下さい)

C-Box (C箱), B-Box (B箱), H-Box (H箱), D-Box (D箱), M-Box (M箱)

CONTAINER/CHASSIS OUTSIDE (コンテナ/シャーシの外側)

CONTAINER INSIDE (コンテナの内側)

USER'S SIGNATURE (船積受取者)

CLERK'S SIGNATURE (船積受取者)

DRIVER

Appendix 2.5.1 Conversion factor for materials

	Ratio of tradable goods	Ratio of duty and taxes for import	SCF	Conversion factor for materials
Iron material	0.4	0.57	0.90	0.79
Gravel	0.0		0.90	0.90
Sand	0.0		0.90	0.90
Bricks	0.0		0.90	0.90
Crushed brick	0.0		0.90	0.90
Fuel	1.0	*		0.86
Cement	1.0	0.33		0.75
Machinery	1.0	0.93		0.52

*: $0.25\text{TK/L} + (\text{CIF} \times 0.13)$

Market price of Fuel: 9.2TK/L,

so Conversion Factor for Fuel = $(9.2 - 0.25) / (9.2 \times 1.13)$

Source for Ratio of duty and taxes for import: Tariff table

Source for Ratio of tradable goods: Study team estimate

Appendix 2.5.2 Standard Conversion Factor

Year	Total import value(cif)	Total export value(fob)	Total import tax	Total export tax	SCF in each year
	(M. TK)	(M. TK)	(M. TK)	(M. TK)	
1982	55,130	18,610	8,287	107	0.900
1983	58,690	20,510	8,402	69	0.905
1984	68,740	25,210	10,309	1,558	0.915
1985	70,650	27,170	12,231	81	0.890
1986	80,260	30,640	14,500	126	0.885
1987	93,290	37,050	15,680	-	0.893
1988	108,480	41,160	16,930	-	0.898
Average					0.898

Appendix 2.5.3 Conversion Factor for Unskilled Labor

Value added in agriculture sector(Million TK)	207,976
Total number of labor in agriculture sector(Million TK)	4,393
Value added per person in agriculture sector(TK/day)	47.34
Marginal product of unskilled labor(TK/day)	23.67
Average nominal wage rate of unskilled labor(TK/day)	30.37
Conversion factor for consumption	0.915
Conversion factor for unskilled labor	0.713

Note: The data is in 1984

Source: Statistical yearbook of Bangladesh in 1988, (BBS)
Yearbook of labor statistics in 1988, (ILO)

Appendix 2.5.4 Fixed cost of Cargo Handling Equipments at Economic Price

Item	Market price (1000 TK)	Tax & duty	Economic price (1000 TK)	Depreciation		Rate of interest (1000 TK)	Interest per Year (1000 TK)	Rate of insurance per Year (1000 TK)	Rate of R. and M. (1000 TK)	Repair and Total cost per Year (1000 TK)
				Period (Year)	Expense (1000 TK)					
Truck	684	2.33	556	5	102	0.00	0	0.0154	2	11
Tractor	2,100	0.18	1,767	5	322	0.00	0	0.0154	6	24
Trailer	2,687	1.53	1,133	5	204	0.00	0	0.0154	9	22
Locomotive	71,384	0.57	45,950	20	2,062	0.01	18	0.0200	72	115
Wagon	2,699	0.57	1,719	20	52	0.01	0	0.0200	2	1
Vessel	249,445	0.57	153,382	30	4,756	0.01	42	0.0250	300	317
Gantry crane (Dhaka)	164,596	0.57	120,143	15	7,209	0.01	55	0.0000	0	320
Straddle carrier	48,375	0.93	24,029	5	4,325	0.01	45	0.0000	0	192
Forklift (st)	1,310	0.57	835	5	150	0.01	1	0.0000	0	7
Forklift (st)	14,826	2.93	7,687	5	1,384	0.01	15	0.0000	0	61

*: Interest of international loan

Note: Rate of R and M: Rate of Repair and Maintenance.

Source: RHD, BIWTC, BR, CPA and Truck owner's Association.

Appendix 2.5.5 Annual Fuel Consumption per Unit (Economic Price)

Item	Fuel consumption		Moving Km per day	Working day or hour (D/Y)	Fuel price (L/TK)	Fuel cost (000TK/Y)
	(L/H)	(L/Km)				
Vessel (Chittagong)	191:10			3.774	7.912	5,706
Train		7.00	320.79	300	7.912	10,660
Trailer			248.3	300	7.912	196
Truck (Chittagong)		3.60	248.3	300	7.912	164
Vessel (Mongla)	191:10			3.735	7.912	5,647
Truck (in Dhaka)		3.60	80	300	7.912	53
Truck (Mongla)		3.60	370	300	7.912	244

Fuel price: 9.2 x 0.86

Source: RHD, BIWTC, BR, and Truck owner's Association.

Appendix 2.5.6 Annual Crew or Drivers cost per Unit (Economic Price)

(Unit:TK)

	Skilled labour		Unskilled labour		Total
	Number	Wage	Number	Wage	
Vessle	4	21.496	8	10.729	171.817
Train	8	34.961	0	-	279.686
Trailer	2	48.488	0	-	96.976
Truck	2	48.488	0	-	96.976

Source: BIWTC, BR, RHD and Truck owner's Association.

Appendix 2.5.7 Annual Running Expenses for Dhaka IWT, terminal, Multi-purpos terminal in Chittagong and Terminal at Mongla Port (Economic Price)

(Unit:Thousand TK)

	IWT terminal	Multi purpose terminal		Terminal at Mongla Port	Total
		Dhaka	Chittagong		
Place of terminal					
Depreciation expenses	65.122	127.203		7.158	199.483
Interest of international loan	5.695	14.165		580	20.439
Maintenance, repairing and operation expenses	40.738	79.574		4,478	124.790
Total	111.554	220,942		12,216	344.713

Source: CPA, MPA and Study team estimate

Appendix 2.5.8 ##### IRR CALCULATION #####

**** Bangladesh (Base Case)
 ***** IRR(%) = 14.66

NO.	YEAR	COST	BENEFIT	BNFT.-COST	P. COST	P. BNFT	P. VALUE
1	1991	30729.00	0.00	-30729.00	30729.00	0.00	-30729.00
2	1992	188303.00	0.00	-188303.00	164222.00	0.00	-164222.00
3	1993	155592.00	0.00	-155592.00	118341.00	0.00	-118341.00
4	1994	891877.00	0.00	-891877.00	591599.00	0.00	-591599.00
5	1995	42014.00	102550.00	60536.00	24304.70	59324.20	35019.50
6	1996	42014.00	221738.00	179724.00	21196.50	111869.00	90672.70
7	1997	42014.00	257327.00	215313.00	18485.80	113222.00	94735.90
8	1998	42014.00	278958.00	236944.00	16121.80	107043.00	90921.00
9	1999	196251.00	311370.00	115119.00	65675.70	104200.00	38524.70
10	2000	42014.00	343379.00	301365.00	12262.00	100217.00	87954.80
11	2001	42014.00	343379.00	301365.00	10693.90	87400.60	76706.70
12	2002	42014.00	343379.00	301365.00	9326.29	76223.40	66897.10
13	2003	42014.00	343379.00	301365.00	8133.60	66475.60	58342.00
14	2004	362630.00	343379.00	-19251.00	61224.70	57974.40	-3250.25
15	2005	42014.00	343379.00	301365.00	6186.30	50560.40	44374.10
16	2006	42014.00	343379.00	301365.00	5395.17	44094.50	38699.40
17	2007	42014.00	343379.00	301365.00	4705.21	38455.50	33750.30
18	2008	42014.00	343379.00	301365.00	4103.49	33537.70	29434.20
19	2009	436538.00	343379.00	-93159.00	37183.90	29248.70	-7935.20
20	2010	42014.00	343379.00	301365.00	3121.05	25508.30	22387.20
21	2011	42014.00	343379.00	301365.00	2721.92	22246.20	19524.20
22	2012	42014.00	343379.00	301365.00	2373.83	19401.20	17027.40
23	2013	42014.00	343379.00	301365.00	2070.25	16920.10	14849.90
24	2014	362630.00	343379.00	-19251.00	15583.60	14756.30	-827.29
25	2015	42014.00	343379.00	301365.00	1574.60	12869.20	11294.60
26	2016	42014.00	343379.00	301365.00	1373.24	11223.40	9850.19
27	2017	42014.00	343379.00	301365.00	1197.62	9788.12	8590.50
28	2018	42014.00	343379.00	301365.00	1044.47	8536.38	7491.91
29	2019	196251.00	343379.00	147128.00	4254.86	7444.71	3189.84
30	2020	42014.00	343379.00	301365.00	794.41	6492.65	5698.24
31	2021	42014.00	343379.00	301365.00	692.81	5662.34	4969.52
32	2022	42014.00	343379.00	301365.00	604.21	4938.21	4334.00
33	2023	42014.00	343379.00	301365.00	526.94	4306.69	3779.75
34	2024	799698.00	343379.00	-456319.00	8747.23	3755.94	-4991.29
35	2025	42014.00	343379.00	301365.00	400.79	3275.61	2874.82
TOTAL		4670850.00	10099800.00	5428950.00	1256970.00	1256970.00	-0.13

UNIT = 1000 TK

Appendix 2.5.9 ##### IRR CALCULATION #####

**** Bangladesh(Case-1)
**** IRR(%) = 12.97

NO.	YEAR	COST	BENEFIT	BNFT.-COST	P. COST	P. BNFT	P. VALUE
1	1991	33802.00	0.00	-33802.00	33802.00	0.00	-33802.00
2	1992	207133.00	0.00	-207133.00	183353.00	0.00	-183353.00
3	1993	171151.00	0.00	-171151.00	134109.00	0.00	-134109.00
4	1994	981065.00	0.00	-981065.00	680478.00	0.00	-680478.00
5	1995	46215.00	102550.00	56335.00	28375.10	62963.80	34588.60
6	1996	46215.00	221738.00	175523.00	25117.50	123799.00	95395.50
7	1997	46215.00	257327.00	211112.00	22233.90	123799.00	101565.00
8	1998	46215.00	278958.00	232743.00	19681.30	118798.00	99116.90
9	1999	215876.00	311370.00	95494.00	81379.40	117378.00	35998.60
10	2000	46215.00	343379.00	297164.00	15421.70	114584.00	99161.90
11	2001	46215.00	343379.00	297164.00	13651.20	101429.00	87777.60
12	2002	46215.00	343379.00	297164.00	12084.00	89784.20	77700.20
13	2003	46215.00	343379.00	297164.00	10696.70	79476.50	68779.80
14	2004	398893.00	343379.00	-5514.00	81726.00	70352.20	-11373.80
15	2005	46215.00	343379.00	297164.00	8381.57	53893.80	53893.80
16	2006	46215.00	343379.00	297164.00	7419.32	55125.80	47706.50
17	2007	46215.00	343379.00	297164.00	6567.54	48797.10	42229.50
18	2008	46215.00	343379.00	297164.00	5813.55	43194.90	37381.30
19	2009	480192.00	343379.00	-136813.00	53470.30	38235.90	-15234.40
20	2010	46215.00	343379.00	297164.00	4555.32	33846.20	29290.90
21	2011	46215.00	343379.00	297164.00	4032.35	29960.50	25928.10
22	2012	46215.00	343379.00	297164.00	3569.41	26520.80	22951.40
23	2013	46215.00	343379.00	297164.00	3159.62	23476.10	20316.50
24	2014	398893.00	343379.00	-5514.00	24140.60	20780.90	-3359.65
25	2015	46215.00	343379.00	297164.00	2475.78	18395.20	15919.40
26	2016	46215.00	343379.00	297164.00	2191.55	16283.30	14091.70
27	2017	46215.00	343379.00	297164.00	1939.95	14413.90	12473.90
28	2018	46215.00	343379.00	297164.00	1717.23	12759.10	11041.90
29	2019	215876.00	343379.00	127503.00	7100.50	11294.30	4193.78
30	2020	46215.00	343379.00	297164.00	1345.57	9997.64	8652.07
31	2021	46215.00	343379.00	297164.00	1191.09	8849.86	7658.76
32	2022	46215.00	343379.00	297164.00	1054.35	7833.84	6779.49
33	2023	46215.00	343379.00	297164.00	933.30	6934.47	6001.17
34	2024	879668.00	343379.00	-536289.00	15725.20	6138.36	-9586.88
35	2025	46215.00	343379.00	297164.00	731.31	5433.64	4702.34
TOTAL		5137920.00	10099800.00	4961870.00	1499620.00	1499620.00	0.83

UNIT = 1000 TK

Appendix 2.5.10 ##### IRR CALCULATION #####

**** Bangladesh(Case-2)
 ***** IRR(%) = 12.55

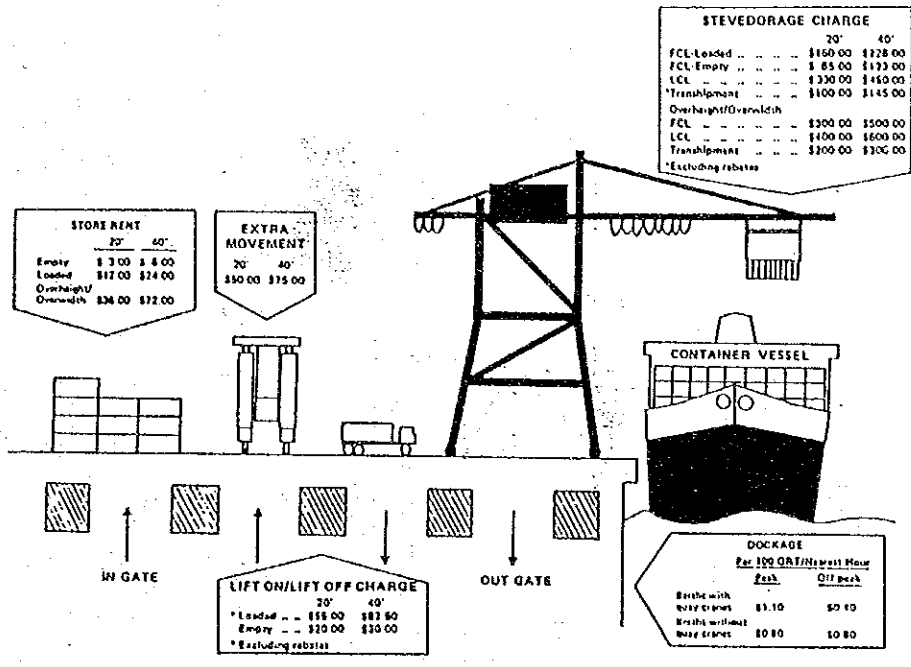
NO.	YEAR	COST	BENEFIT	BNFT. -COST	P. COST	P. BNFT	P. VALUE
1	1991	30729.00	0.00	-30729.00	30729.00	0.00	-30729.00
2	1992	188303.00	0.00	-188303.00	167302.00	0.00	-167302.00
3	1993	155592.00	0.00	-155592.00	122822.00	0.00	-122822.00
4	1994	891877.00	0.00	-891877.00	625517.00	0.00	-625517.00
5	1995	42014.00	79401.00	37387.00	26180.20	49477.20	23297.00
6	1996	42014.00	194781.00	152767.00	23260.40	107838.00	84577.20
7	1997	42014.00	227696.00	185682.00	20666.30	112002.00	91335.30
8	1998	42014.00	246693.00	204679.00	18361.50	107813.00	89451.30
9	1999	196251.00	281279.00	85028.00	76202.70	109218.00	33015.70
10	2000	42014.00	307277.00	265263.00	14494.30	106007.00	91512.40
11	2001	42014.00	307277.00	265263.00	12877.80	94184.20	81306.40
12	2002	42014.00	307277.00	265263.00	11441.60	83680.20	72238.60
13	2003	42014.00	307277.00	265263.00	10165.60	74347.70	64182.10
14	2004	362630.00	307277.00	-55353.00	77955.30	66056.00	-11899.40
15	2005	42014.00	307277.00	265263.00	8024.56	58689.10	50664.50
16	2006	42014.00	307277.00	265263.00	7129.61	52143.70	45014.10
17	2007	42014.00	307277.00	265263.00	6334.47	46328.30	39993.90
18	2008	42014.00	307277.00	265263.00	5628.02	41161.50	35533.50
19	2009	436538.00	307277.00	-129261.00	51955.10	36570.90	-15384.20
20	2010	42014.00	307277.00	265263.00	4442.68	32492.30	28049.70
21	2011	42014.00	307277.00	265263.00	3947.21	28868.60	24921.40
22	2012	42014.00	307277.00	265263.00	3506.99	25649.00	22142.00
23	2013	42014.00	307277.00	265263.00	3115.87	22788.50	19672.60
24	2014	362630.00	307277.00	-55353.00	23894.30	20247.00	-3647.30
25	2015	42014.00	307277.00	265263.00	2459.62	17988.90	15529.30
26	2016	42014.00	307277.00	265263.00	2185.31	15982.70	13797.40
27	2017	42014.00	307277.00	265263.00	1941.59	14200.20	12258.60
28	2018	42014.00	307277.00	265263.00	1725.06	12616.50	10891.50
29	2019	196251.00	307277.00	11026.00	7159.22	11209.40	4050.22
30	2020	42014.00	307277.00	265263.00	1361.74	9959.30	8597.57
31	2021	42014.00	307277.00	265263.00	1209.87	8848.58	7638.71
32	2022	42014.00	307277.00	265263.00	1074.94	7861.73	6786.80
33	2023	42014.00	307277.00	265263.00	955.05	6984.95	6029.90
34	2024	799698.00	307277.00	-492421.00	16151.20	6205.95	-9945.22
35	2025	42014.00	307277.00	265263.00	753.91	5513.82	4759.92
TOTAL		4670850.00	9019050.00	4348200.00	1392930.00	1392930.00	0.48

UNIT = 1000 TK

Appendix 6.2.1

MAIN CHARGES FOR CONTAINER OPERATIONS

AT TANJONG PAGAR TERMINAL IN SINGAPORE



STORE RENT		20'	40'
Empty	\$ 3 00	\$ 4 00	
Loading	\$17 00	\$24 00	
Overheight			
Overwidth	\$36 00	\$72 00	

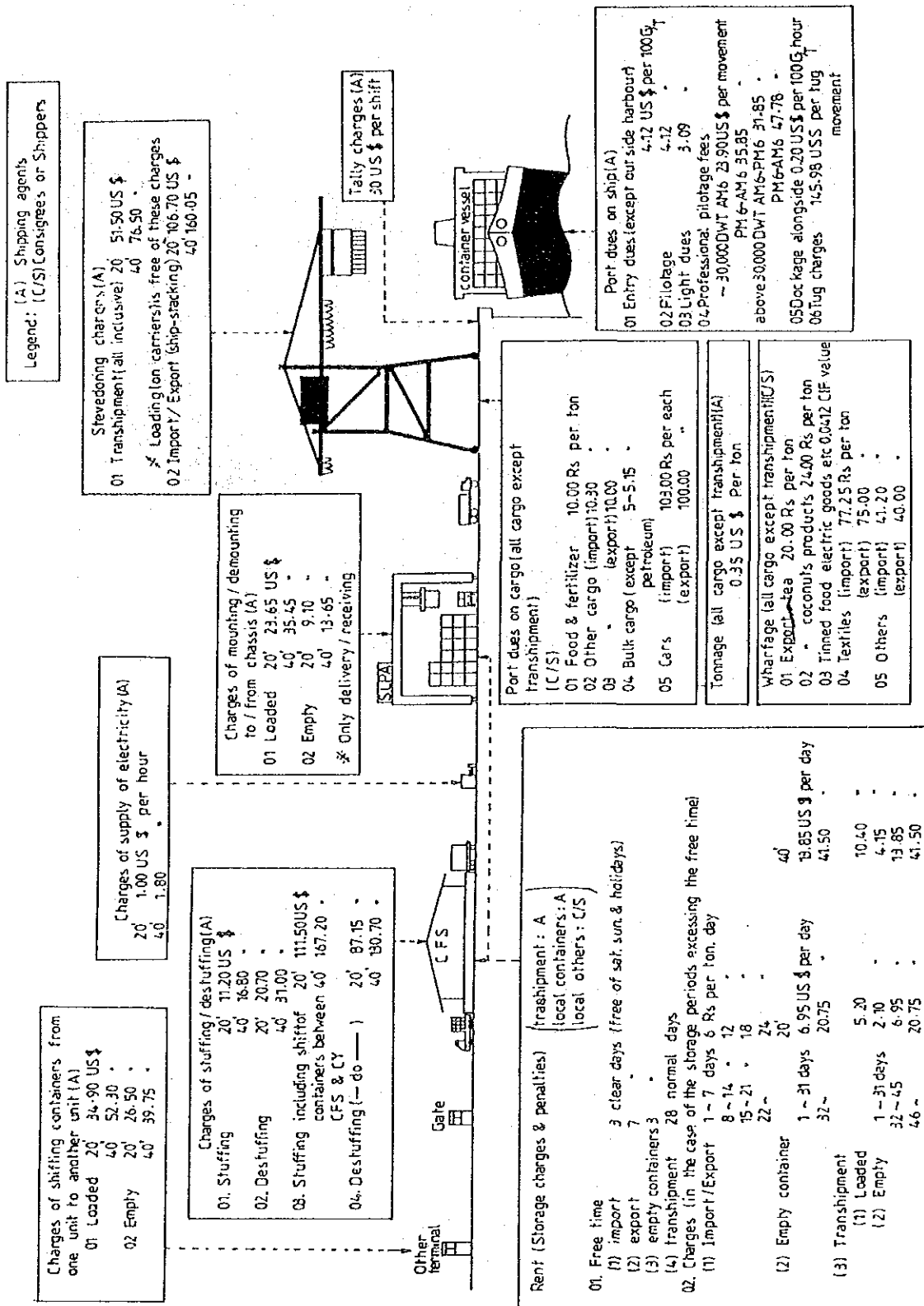
EXTRA MOVEMENT		20'	40'
	\$50 00	\$75 00	

LIFT ON/LIFT OFF CHARGE		20'	40'
* Loaded	\$55 00	\$82 50	
* Empty	\$20 00	\$30 00	

STEVEDORAGE CHARGE			
	20'	40'	
FCL-Loaded	\$180 00	\$228 00	
FCL-Empty	\$ 85 00	\$113 00	
LCL	\$330 00	\$450 00	
*Transshipment	\$100 00	\$145 00	
Overheight/Overwidth			
FCL	\$300 00	\$500 00	
LCL	\$400 00	\$600 00	
Transshipment	\$200 00	\$300 00	

DOCKAGE		
Per 100 GAT/Inward Hour		
	20'	40'
Boats with Quay cranes	\$3.10	\$2.40
Boats without Quay cranes	\$0.80	\$0.80

Appendix 6.2.2 Main Charges for Container Operations at the Port of Colombo



Legend: (A) Shipping agents
(C/S) Consignees or Shippers

Stevedoring charges (A)
01 Transhipment (all inclusive) 20' 51.50 US \$
40' 76.50
* Loading ton carriers is free of these charges
02 Import/Export (ship-stacking) 20' 106.70 US \$
40' 160.05

Charges of supply of electricity (A)
20' 1.00 US \$ per hour
40' 1.80

Charges of stuffing/destuffing (A)
01. Stuffing 20' 11.20 US \$
40' 16.80
02. Destuffing 20' 20.70
40' 31.00
03. Stuffing including shift of 20' 111.50 US \$
containers between CFS & CY 40' 167.20
04. Destuffing (— do —) 20' 87.15
40' 130.70

Charges of mounting/dismounting to/from chassis (A)
01 Loaded 20' 23.65 US \$
40' 35.45
02 Empty 20' 9.10
40' 13.65
* Only delivery/receiving

Tally charges (A)
30 US \$ per shift

Port dues on cargo (all cargo except transhipment) (C/S)
01 Food & fertilizer 10.00 Rs per ton
02 Other cargo (import) 10.30
(export) 10.00
03 Bulk cargo (except petroleum) 5-5.15
04 Cars (import) 103.00 Rs per each
(export) 100.00
Tonnage (all cargo except transhipment) (A)
0.35 US \$ Per ton

Rent (Storage charges & penalties) (transhipment: A local containers: A local others: C/S)

01. Free time
(1) import 3 clear days (free of sat. sun & holidays)
(2) export 7
(3) empty containers 3
(4) transhipment 28 normal days
02. Charges (in the case of the storage periods exceeding the free time)
(1) Import/Export 1-7 days 6 Rs per ton, day
8-14 12
15-21 18
22- 24
20' 20'
(2) Empty container 1-31 days 6.95 US \$ per day
32- 20.75
40' 19.85 US \$ per day
41.50
(3) Transhipment (1) Loaded 5.20
(2) Empty 2.10
32-45 6.95
46- 20.75

Port dues on ship (A)
01 Entry dues (except out side harbour) 4.12 US \$ per 100 G.
4.12
02 Pilotage 4.12
03 Light dues 3.09
04 Professional pilotage fees
~ 30,000 DWT AM6 23.90 US \$ per movement
PM6-AM6 35.85
above 30,000 DWT AM6-PM6 31.85
PM6-AM6 47.76
05 Dockage alongside 0.20 US \$ per 100 G. hour
06 Tug charges 145.99 US \$ per tug movement

Wharfage (all cargo except transhipment) (C/S)
01 Export tea 20.00 Rs per ton
02 coconut products 24.00 Rs per ton
03 Tinned food electric goods etc 0.0412 CIF value
04 Textiles (import) 77.25 Rs per ton
(export) 75.00
05 Others (import) 41.20
(export) 40.00

Appendix 6.2.3 Comparison of freight between waterways, trucks and railways

PHASES	KINDS OF CHARGES	UNIT	ITEMS, TEUS TRUCKS OR CONT.	(TK.)	
				FREIGHT	FREIGHT & CHARGES
EXPORT	ROAD TRANSPORT	TRUCK FREIGHT FOR LOOSE CARGO	500.00 /TRUCK	3.00	1,500.00
	DHAKA LCL	UNLOADING CHARGE FROM TRUCKS FOR LOOSE CARGO	61.82 /TON	11.25	695.48
		STUFFING CHARGE	61.82 /TON	11.25	695.48
		WHARF RENT FOR LOOSE CARGO AND STORAGE CHARGE FOR A CONTAINER		0.00	0.00
		RIVER DUES FOR LCL CARGO	16.93 /TON	11.25	189.34
		LOADING CHARGE TO A VESSEL FOR A LCL CONTAINER	4,870.58 /20' CONT.	1.00	4,870.58
	WATERWAY TRANSPORT	PORT CHARGES ON A VESSEL	111.00 /TEU	1.00	111.00
		SUB-TOTAL			6,561.87
		WATERWAY FREIGHT FOR A CONTAINER	1,950.00 /20' CONT.	1.00	1,950.00
		UNLOADING CHARGE FROM A VESSEL FOR A FCL CONTAINER	1,109.00 /20' CONT.	1.00	1,109.00
CHITTAGONG PORT(*)	STORAGE CHARGE FOR A CONTAINER	120' /DAY		0.00	
	RIVER DUES FOR FCL CARGO	184.00 /20' CONT.	1.00	184.00	
	LOADING CHARGE TO A VESSEL FOR A FCL CONTAINER	1,478.00 /20' CONT.	1.00	1,478.00	
	PORT CHARGES ON A VESSEL	100.00 /TEU	1.00	100.00	
	SUB-TOTAL			2,871.00	
TOTAL					12,882.87
IMPORT	CHITTAGONG PORT(*)	PORT CHARGES ON A VESSEL	100.00 /TEU	1.00	100.00
		UNLOADING CHARGE FROM A VESSEL FOR A FCL CONTAINER	1,478.00 /20' CONT.	1.00	1,478.00
		RIVER DUES FOR FCL CARGO	408.00 /20' CONT.	1.00	408.00
		STORAGE CHARGE FOR A CONTAINER	51.00 /20' /DAY	6.00	306.00
		LOADING CHARGE TO A VESSEL FOR A FCL CONTAINER	1,109.00 /20' CONT.	1.00	1,109.00
	WATERWAY TRANSPORT	SUB-TOTAL			3,401.00
		WATERWAY FREIGHT FOR A CONTAINER	1,950.00 /20' CONT.	1.00	1,950.00
		PORT CHARGES ON A VESSEL	110 /TEU	1.00	110.00
		UNLOADING CHARGE FROM A VESSEL FOR A LCL CONTAINER	4,870.58 /20' CONT.	1.00	4,870.58
		UNSTUFFING CHARGE	81.82 /TON	13.03	805.51
DHAKA LCL	RIVER DUES FOR LCL CARGO	37.51 /TON	13.02	488.76	
	WHARF RENT FOR LOOSE CARGO AND STORAGE CHARGE FOR A CONTAINER	4.40 /TON	13.03	57.32	
	LOADING CHARGE TO TRUCKS FOR LOOSE CARGO	61.82 /TON	13.03	805.51	
	SUB-TOTAL			7,137.72	
ROAD TRANSPORT	TRUCK FREIGHT FOR LOOSE CARGO	500.00 /TRUCK	3.00	1,500.00	
TOTAL					13,938.70
WEIGHTED AVERAGE(*)			(1.00)		13,753.53

(*) In Chittagong Port, all containers including LCL containers, which are not stuffed/unstuffed in the port, are treated as FCL containers.

(#2) Weighted average = $\frac{\text{freight for export} \times \text{number of export containers} + \text{freight for import} \times \text{number of import containers}}{\text{total number of containers}}$

(2) TRUCKS

(TK.)

PHASES	KINDS OF CHARGES	UNIT FREIGHT OR CHARGES	TONS, TEUS TRUCKS OR CONT.	FREIGHT & CHARGES
ROAD TRANSPORT	TRUCK'S FREIGHT FOR LOOSE CARGO	2,085.00 /TRUCK	3.00	6,195.00
EXPORT	UNLOADING CHARGE FROM TRUCKS FOR LOOSE CARGO	56.20 /TON	11.25	632.25
	STUFFING CHARGE	56.20 /TON	11.25	632.25
	WHARF RENT FOR LOOSE CARGO AND STORAGE CHARGE FOR A CONTAINER	0.00 /TON	0.00	0.00
	RIVER DUES FOR LCL CARGO	15.30 /TON	11.25	172.13
	LOADING CHARGE TO A VESSEL FOR A LCL CONTAINER	4,427.80 /20' CONT.	1.00	4,427.80
	PORT CHARGES ON A VESSEL	100.00 /TEU	1.00	100.00
	SUB-TOTAL			5,964.43
TOTAL				12,159.43
IMPORT	PORT CHARGES ON A VESSEL	100.00 /TEU	1.00	100.00
	UNLOADING CHARGE FROM A VESSEL FOR A LCL CONTAINER	4,427.30 /20' CONT.	1.00	4,427.30
	RIVER DUES FOR LCL CARGO	34.10 /TON	12.03	444.32
	WHARF RENT FOR LOOSE CARGO AND STORAGE CHARGE FOR A CONTAINER	24.00 /TON	0.00	0.00
	UNSTUFFING CHARGE	56.20 /TON	13.03	732.29
	LOADING CHARGE TO TRUCKS FOR LOOSE CARGO	56.20 /TON	13.03	732.29
	SUB-TOTAL			6,436.70
ROAD TRANSPORT	TRUCK FREIGHT FOR LOOSE CARGO	5,170.00 /TRUCK	3.00	15,510.00
TOTAL				21,946.70
WEIGHTED AVERAGE(*2)			1.35	16,552.79

(3) RAILWAYS

(TK.)

	PHRASES	KINDS OF CHARGES	UNIT FREIGHT OR CHARGES	TONS. TEUS TRUCKS OR CONT.	FREIGHT & CHARGES	
EXPORT	ROAD TRANSPORT	TRUCK FREIGHT FOR LOOSE CARGO	500.00 /TRUCK	3.00	1,500.00	
		UNLOADING CHARGE FROM TRUCKS FOR LOOSE CARGO	56.20 /TON	11.25	632.25	
		LCL HANDLING CHARGE	56.20 /TON	11.25	632.25	
		STUFFING CHARGE	56.20 /TON	11.25	632.25	
		WHARF RENT FOR LOOSE CARGO AND STORAGE CHARGE FOR A CONTAINER	0.00 /TON		0.00	
		LOADING CHARGE TO A WAGON FOR A LCL CONTAINER	600.00 /20' CONT.	1.00	600.00	
		ENTRANCE FEE ON TRUCKS	605.00 /TRUCK	3.00	1,815.00	
		SUB-TOTAL			4,311.75	
		RAILWAY TRANSPORT	RAILWAY FREIGHT FOR A CONTAINER	2,500.00 /20' CONT.	1.00	2,500.00
			UNLOADING CHARGE FROM A WAGON FOR A CONTAINER	1,000.00 /20' CONT.	1.00	1,000.00
		STORAGE CHARGE FOR A CONTAINER			0.00	
	CHITTAGONG PORT(*)	RIVER DUES FCL CARGO	184.00 /20' CONT.	1.00	184.00	
		LOADING CHARGE TO A VESSEL FOR A FCL CONTAINER	1,478.00 /20' CONT.	1.00	1,478.00	
		PORT CHARGES ON A VESSEL	100.00 /TEU	1.00	100.00	
		SUB-TOTAL			2,762.00	
	TOTAL				11,073.75	
IMPORT	CHITTAGONG PORT(*)	PORT CHARGES ON A VESSEL	100.00 /TEU	1.00	100.00	
		UNLOADING CHARGE FROM A VESSEL FOR A FCL CONTAINER	1,478.00 /20' CONT.	1.00	1,478.00	
		RIVER DUES FOR FCL CARGO	408.00 /20' CONT.	1.00	408.00	
		STORAGE CHARGE FOR A CONTAINER	51.00 /20' /DAY	6.00	306.00	
		LOADING CHARGE TO A WAGON FOR A FCL CONTAINER	1,000.00 /20' CONT.	1.00	1,000.00	
		SUB-TOTAL			3,292.00	
		RAILWAY TRANSPORT	RAILWAY FREIGHT FOR A CONTAINER	5,000.00 /20' CONT.	1.00	5,000.00
			UNLOADING CHARGE FROM A WAGON FOR A LCL CONTAINER	600.00 /20' CONT.	1.00	600.00
			UNSTUFFING CHARGE	56.20 /TON	13.03	732.29
		KAMALAPUR ICO	WHARF RENT FOR LOOSE CARGO AND STORAGE CHARGE FOR A CONTAINER	60.00 /TON	13.03	721.80
		LCL HANDLING CHARGE	56.20 /TON	13.03	722.29	
		LOADING CHARGE TO TRUCKS FOR LOOSE CARGO	56.20 /TON	13.03	732.29	
		ENTRANCE FEE ON TRUCKS	605.00 /TRUCK	3.00	1,815.00	
		SUB-TOTAL			5,333.56	
	ROAD TRANSPORT	TRUCK FREIGHT FOR LOOSE CARGO	500.00 /TRUCK	3.00	1,500.00	
	TOTAL				15,125.86	
	WEIGHTED AVERAGE (%)			1.01	12,337.01	

JICA