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Appendix - E(a)

.

Site: Puerto Cortes

Test Data:	140LB.	Hammer,	30"	Fall	and	2"	Spilit Spoon Sampler
	+				-		

B-1		, B-2	2.	В	-3
Depth (m)	Total Blow Count	Depth (m)	Total Blow Count	Depth (m)	Total Blow Count
2.00 - 2.45	6	3.00 - 3.56	5	2.00 - 2.45	5
4.00 - 4.45	13	5.00 - 5.45	10	4.00 - 4.45	- 11
6.00 - 6.45	5	7.00 - 7.45	49	6.00 - 6.45	15
8.00 - 8.45	17	10.00 - 10.45	31	8.00 - 8.45	9
10.00 - 10.45	12	12.00 - 12.45	57	12.00 - 12.45	l
12.00 - 12.45	29	14.00 - 14.45	46	14.00 - 14.45	27
14.00 - 14.45	53	16.00 - 16.45	29	16.00 - 16.45	52
16.00 - 16.45	44	18.00 - 18.45	45	18.00 - 18.45	74
18.00 - 18.45	40	20.00 - 20.45	32	20.00 - 20.45	40
20.00 - 20.45	47			22.00 - 22.45	37
22.00 - 22.45	41			24.00 - 24.45	21
24.00 - 24.45	45			26.00 - 26.45	6
26.00 - 26.45	51			28.00 - 28.45	25
28.00 - 28.45	.43			32.00 - 32.45	9
3000 - 30.45	69			36.00 - 36.45	12
32.00 - 32.45	19			40.00 - 40.45	21
36.00 - 36.45	. 8		·	44.00 - 44.45	21
40.00 - 40.45	9			48.50 - 48.95	23
44.00 - 44.45	10			50.00 - 50.45	16
46.60 - 47.05	14			52.50 - 52.95	32
48.50 - 48.95	13			53.95 - 54.40	85
52.50 - 52.95	20		-		
55.00 - 55.45	38				

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Appendix - E(b)

Laboratory Test Result (1)

(3 - 1 - (1))								
Depth (cms)	2(X) - 245	400 - 445	600 - 615	8(X) - 845	1000 - 1045	1200 - 2145	1400 - 1445	1600 - 1645
Unified Soil Classification	WS .	SM	SM	SM	SM	SM	SM	SM
AASHTO Soil Classification	A-3 (0)	A-2-4 (0)	A-3 (0)	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)
% passing sieve No. 10/40/2000	98/85/7	99/93/13	6/06/66	100/95/21	98/94/17	99/86/28	100/90/12	99/93/17
Liquid Limit	N.L	N.L	N.L	N.L	N.L	N.L	N.L	N.L
Plusticity Index	ďŇ	d.N	d'X	N.P	N.P	N.P	d'N	d'N
Specific Gravity	2.53	2.54	2.52	2.55	2.56	2.62	2.64	2.53
Wel Density (g/cm ³)			-		1.8	1.76		
Dry Density (g/cm ³)					1.29	1.35		
Moisture Content (%)	27.00	25.10	30.90	53.80	39.00	30.50	24.(X)	25.90
Unconfined compression (kg/cm ²)								
Consolidation Yield Stress (kg/cm ²)								
B - 1 - (2)	۰ ۱			-				
Depth (cms)	18(X) - 1845	2000 - 2045	2200 - 2245	2400 - 2445	2600 - 2645	28(X) - 2845	3000 - 3045	3200 - 3245
Unified Soil Classification	SM	WS.	SM	SM	SM	SM	SM	SM
AASHTO Soil Classification	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-4 (7)
⁴ / ₆ pussing sieve No. 10/40/200	99/90/27	98/96/23	100/97/37	100/98/25	99/97/21	100/98/33	99/98/27	0//66/001
Liquid Limit	N.L.	N.L	N.I.	N.L.	N.I.	N.L	N.L	N.L
Plasticity Index	N.P	N.P	N.P	N,P	N.P	d N b	d'N	d'N
Specific Gravity	2.52	2.54	2.56	2.55	2.56	2.58	2.55	2.56
Wet Density (g/cm ³)	1.83		1.93		1.92	1.63	1.68	1.76
Dry Density (g/cm ³)	1.40		1.49		1:51	1.18	1.29	1.28
Moisture Content (%)	30.40	37.90	29.90	31.10	27.30	38.30	30.40	37.40
Unconfined compression (kg/cm ²)								
Consolidation Yield Stress (kg/cm ²)		-						
8 - 1 - (3)								
Depth (cms)	3460 - 3520	3600 - 3645	3800 - 3860	4000 - 4045	4260 - 4320	4400 - 4445	4660 - 4705	4850 - 4895
Unified Soil Classification	<u>5</u>	CH	CH	CH CH	ĊH	CH	CH	OL
AASHTO Soil Classification	A-7-6 (12)	A-7-6 (16)	A-7-6 (19)	A-7-6 (19)	A-7-6 (14)	A-7-6 (20)	A-7-6 (19)	A-4 (8)
% pussing sicve No. 10/40/200	97/96/95	100/99/97	100/100/98	100/99/92	100/94/87	99/98/97	99/98/94	99/98/95
Liquid Limit	49		52		52			36
Plasticity Index	18		26		27			-20
Specific Gravity	2.50	2.58	2.62	2.67	2.62	2.54	2.62	2.62
Wet Density (g/cm ³)	1.70	1.65	1.68	1.68	1.60	1.61	1.69	1.77
Dry Density (g/cm ³)	1.10	1.07	1.10.	1.12	00.1	1.04	1.16	1.24
Moisture Content (%)	56.50	53.90	52.80	50.10	57.10	54.10	45.70	42.10
Unconfined compression (kg/cm ²)	0.35 .		0.52		0.16			
Consolidation Yield Stress (kg/cm ²)	0.26		0.45		0.35			
					and a summary set of the set of t			

Laboratory Test Result (2)

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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	13 - 1 - (4)					· · · · · · · · · · · · · · · · · · ·			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Depth (cms)	5055 - 5115	5250 5295	5500 - 5545					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Unified Soil Classification	Ċ,	ML	ML					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	AASHTO Soil Classification	A-7-6 (12)	A-4 (8)	A-7-6 (9)	· · · · · · · · · · · · · · · · · · ·				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	% passing sieve No. 1()/40/200	99/94/68	100/99/89	81/06/001					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Liquid Limit	47	34	41					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Plasticity Index	61	8	14					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Specific Gravity	2.63	2.54	2.55					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Wet Density (g/cm ³)	6.1	1.72	1.67					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Dry Density (g/em ³)	1:4	1.25	1.17					
	Moisture Content (%)	35.9	38.40	42.40					
gene2 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.00	Unconfined compression (kg/cm ²)	0.7							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Consolidation Yield Stress (kg/cm ²)	0.1							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	B - 2 - (1)	F							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Depth (cms)	300 - 356	500 - 545	900 - 945	1000 - 1045	1200 1245	1400 - 1445	1600 - 1645	1800 - 1845
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Unified Soil Classification	SM	SM	SM	SM	SM	SM	SM	SM
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	AASHTO Soil Classification	A-2-4 (0)	A-2-4 (0)	A-3 (0)	A-2-4 (())	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)	A-2-4 (0)
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	% passing sicve No. 10/40/2000	100/93/25	\$1/26/66	97/88/6	100/95/22	91/06/001	100/98/15	100/98/25	100/99/28
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Liquid Linvit	N.I.	NL	NF	N.L	N.L.	J.K	N.L	N.L
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Plasticity Index	d.X	N.P	d.N	d.N	N.P	d'N	N.P.	d.N
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Specific Grivity					2.55	2.56	2.51	2.58
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Wet Density (g/cm ³)	2.56	2.52	2.62	2.50				
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Dry Density (g/cm ³)								
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Moisture Content (%)	27.40	35.10	34.70	26.90	22.90	29.60	41.20	32.20
y(cm ²)	Unconfined compression (kg/cm ²)								
0 0 (cm ²)	Consolidation Yield Stress (kg/cm ²)								
0 0 (cm ²)	l3 - 2 - (2)								
0 0 (cm ²)	Depth (cms)	2000 - 2045							
60 / 11 / 11 / 11 / 11 / 11 / 11 / 11 /	Unified Soil Classification	SM							
10/40/2000 10 10/40/2000 10 10 10 10/40/2000 10 10/40/2000 10	AASHTO Soil Classification	A-2-4 (0)							
)) Stress (ky/cm ²)	% passing sicve No. 10/40/200	100/99/27							
)) sion (kt/cm ²) Stress (kt/cm ²)	Liquid Limit	N.L							
)) sion (kt/cm ²) Stress (kt/cm ²)	Plasticity Index	N.P							
)) (kty/cm ²) Stress (kty/cm ²)	Specific Gravity	2.62							
) sion (kg/cm ²) Stress (kg/cm ²)	Wet Density (g/cm ³)	- 16.1	-						
	Dry Density (g/cm ³)	1.40							
Unconfined compression (kg/cm ²) Consolidation Yield Stress (kg/cm ²)	Moisture Content (%)	36.00							
Consolidation Yield Stress (kg/em ²)	Unconfined compression (ky/cm ²)								
	Consolidation Yield Stress (kg/cm ²)								

	ſ		LaL	Laboratory	Test Res	Result (3)		
Denth (cms)	245.000	2445-000	SPV - VUV	8141 845	31 11 11/11	1400 1445	1200 1215	5101 0001
Unified Soil Classification	SM	SPSM	SP-SM		SP-SM	SMS	MN - MN	CP01 - UNG1
AASHTO Soil Classification	V 1-6 (0)	A-3 (0)	A-3 (0)	A-6(12)	A-3 (0)	(I) P. C. V	0) P-2-V	- 00 P-C-V
2010 10 10 10 10 10 10 10 10 10 10 10 10	76/50/11	98/71/7	6/£6/001	100/99/86	U16/001	100/94/24	99/07/26	100/96/24
Liquid Limit	N.I.	N.I.	N.L	40	N.I.	N.L	N.I.	NL
Plusticity Index	d.N	d.N	d'N	61	d.N	d'N	N.P	N.P
Specific Gravity	2.47	2.65	2.50	2.55	2.56	2.56	2.50	2.59
Wet Density (g/cm ³)				1.62				
Dry Density (g/cm ³)				1.02				
Moisture Content (%)	20.30	18.50	27.60	59.00	33.20	21.20	30.80	06.61
Unconfined compression (kg/cm ²)								
Consolidation Yield Stress (kg/cm ²)								
B - 3 - (2)								
Depth (curs)	2000 - 2045	22(0) - 22/5	2400 - 2445	2600 - 2645	2800 - 2845 -	3200 - 3245	3400 - 3460	3600 - 3645
Unified Soil Classification	SM	SM	sc	sc	GP-GM	sc	СГ СГ	CI,
AASHTO Soil Classification	A-2-4 (0)	A-2-4 (0)	<u> </u>	A-6 (0)	A-1-a	A-2-4	A-6 (8)	9-V
% passing sicve No. 10/40/200	99/92/13	100/99/26	94/74/48	93/69/42	33/17/5	67/54/20	100/98/74	97/92/60
Liquid Limit	N L	N.L	35	38	N.L.	26	35	32
Plusticity Index	d.N.D	N.P	12	- 14	d'N	. 6	11	18
Specific Gravity	2.53	2.50	2.63	2.67	2.69	2.58	2.63	2.60
Wet Density (g/en1 ³)			1.82	1.80		1.87	1.90	1.96
Dry Density (g/cm ³)			1.27	1.22		1.43	1.40	1.53
Moisture Content (%)	8.20	34.30	43.00	47.40	23.90	30.80	35.70	28.00
Unconfined compression (kg/cm ²)							1.17	
Consolidation Yield Stress (kg/cm ²)							0.30	
13 - 3 - (3)								
Depth (cins)	3800 - 3860	4000 - 4045	4200 - 4260	4400 - 4445	4600 - 4660	4800 - 4845	5(XX) - 5045	5200 - 5245
Unified Soil Classification	<u>.</u>	с С	CL	CL.	CI,	С.	С С	SM
AASHTO Soil Classification	A-6 (5)	9-V -	A-7-6(7)	A-6 (9)	A-7-6 (20)	A-3-6 (18)	A-7-6 (17)	A-2-4 (0)
% passing sieve No. 10/40/200	100/95/57	100/99/64	100/100/81	98/97/58	100/96/93	89/85/82	100/89/89	98/97/19
Liquid Limit	28	34	50	35	70	48	48	N.L
Plusticity Index	[]	17	27	8	35	28	27	N.P
Specific Gravity	2.63	2.54	2.54	2.58	2.49	2.58	2.59	2.63
Wet Density (g/cm ³)	1.80	1.92	1.80 ·	1.91	1,60	1.73	1.74	
Dry Density (g/cm ³)	1.30	1.51	1.30	1.45	1.00	1.26	1.21	
Moisture Content (%)	33.00	26.90	40.10	31.5	53.80	36.4	44.4	21.3
Unconfined compression (kg/cm ²)	1.22		0.43 .		0.70			
Consolidation Yield Stress (kg/cm ²)	0.28							
							يت أركيب ويريين المركين المركين المركين والمركين والمركين والمركين والمركين والمركين والمركين والمركين والمركين	

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Laboratory Test Result (4)

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13 - 3 - (4)				
Depth (cms)	5395 - 5440	-		
Unified Soil Classification	SM			
AASHTO Soil Classification	A-2-4 (0)			
% pussing sieve No. 10/40/200	1(00)/96/35			
Liquid Limit	N.L			
Plasticity Index	V.1		-	
Specific Gravity	2.72			
Wet Density (g/cm ³)				
Dry Density (g/cm ³)		-		
Moisture Content (%)	21.90			
Unconfined compression (kg/cm ²)				
Consolidation Yield Stress (kg/cm ²)				
			-	

Appendix - F

a) Basic Labor Cost per Day

(Unit: Lps.)

·			
	Cost	per Day	
Type of Occupation	Direct Cost	Indirect Cost	Total
Skilled laborer	50.00	20%	60.00
Unskilled laborer	20.00		24.00
Steep le jack	50.00		60.00
Stone mason	45.00		54.00
Electric worker	50.00		60.00
Worker for placing of reinforcement	40.00		48.00
Painter	40.00		48.00
Welder	50.00		60.00
Operator of special vehicle	50.00		60.00
Driver	45.00		54.00
Seaman: Officer	100.00		120.00
Seaman: Crew	50.00		60.00
Diver	250.00*		300.00
Assistant to Diver	35.00		42.00
Scaffolder	40.00		48.00
Carpenter	45.00		54.00
Plasterer	45.00		54.00
Plumber	45.00		54.00
Steel metal worker	45.00		54.00
Tiller	45.00		54.00

* per hour

Sources: (1)

Statistical Bulletin of the National Information Center of Construction Industry, (Centro Nacional de Información, de la Industria de la Construcción).

(2) Empresa Nacional Portuaria (ENP).

			· C-	Unit: Lp
	Material	Unit	Co Foreign	Local
Fuel: Regular gase Diesel oil Bunker oil	line	liter liter liter	2.20 1.89 1.70	LUCAI
Bitumen: AC 20 (pen. MC 70 (cut) RC 250		liter liter liter	1.25 1.49 1.91	
Aggregate: Sand Gravel (3/4* Gravel (1.5*) Gravel (2.0*) Cobble stone Cobble stone Rock (100 kg Rock (200 kg	(small) (large) ;)	m ³ m ³ m ³ m ³ m ³ m ³ m ³		70.0 65.0 62.0 50.0 52.0 52.0 55.0
Cement & Products:				
Ready-mixed	concrete	m		670.0
Max. aggregg (105 kg/cn (140 kg/cn (210 kg/cn (280 kg/cn (350 kg/cn (445 kg/cn	1 ²) 1 ²) 1 ²) 1 ²) 1 ²)	m ³ m ³ m ³ m ³ m ³		355.9 371.4 403.9 440.6 475.98 543.77
Max. aggrega (105 kg/cm (140 kg/cm (210 kg/cm (280 kg/cm (350 kg/cm (445 kg/cm	2) 2} 2} 2} 2} 2]	m ³ m ³ m ³ m ³ m ³ m ³ m ³		347,45 364,40 389,82 426,54 466,09 529,65
Concrete bloc	k (4*x8*x16*) (6*x8*x16*) (8*x8*x16)	piece piece piece		1.45 1.61 2.64
Brick	(0.6x13x6 cm) (26x13x8 cm)	piece piece		0.40 0.50
Rough-face br	ick	piece piece		0.50 0.24
Reinforced cor Reinforced cor Prestressed co Prestressed co Prestressed co Prestressed co	acrete pile (0.46mx0.46mm, 1= ncrete pile (0.45mx0.456m) ncrete pile ncrete beam			199.66 538.00 531.61 2,625.33 3,334.44 2,822.47
lron & Steel: Plain iron road	<pre>{ (5.5mmx30') (8.0mmx30') (3/8mmx30') (1/2mmx30') (5/8*x30') (3/4*x30') (7/9x30') (1*x30') </pre>	each each each each each each cach cach	5.49 12.07 14.59 25.86 38.9 59.27 79.03 105.37	-y-24-71

b) Unit Cost of Materials

			Co	st
* * .	Material	Unit	Foreign	Local
Wood prod	ucts: Wooden pile, pine øl.0', 1= Plywood, first-class mahoga Plywood, first-class pine	each each each each each		1,400.00 56,65 131.14 40.24 103.04

(1) Statistical Bulletin of the National Information Center of Construction Industry (Centro Nacional de Source: Información de la Industria de la Construcción). Empresa Nacional Portuaria (ENP).

(2)

(3) Hearing from the local materials suppliers.

c}	Rental	Charge	of	Main	Construction	Machinery

			· · · · · · · · · · · · · · · · · · ·	Unit: Lps
· · · ·	Machines	Unit	Rental Charge	Owner
EARTH/ROCK MOV	ING			
	9 ton	hour	250.00 ~ 270.00	Private
	15 ton	hour	360.00	company
	21 ton	hour	500.00 ~ 620.00	
Tractorshovel:	1.0m ³	hour	190,00 ~ 200.00	
Wheel type:	1.4m ³	hour	220.00	
	2.1m ³	hour	230.00	
Power Shovel:	0.2m ³	hour	170.00	
	0.4m ³	hour	200.00 ~ 225.00	
·	0.6m ³ 4			
Scrapedozer:	15t+6m ³	hour	150.00 ~ 210.00	
	26t+8m3	hour	300.00 ~ 350.00	
GRADING/ROLLING				
Motorgrader:	2.2m	hour	200.00 ~ 215.00	
	2.8m	hour	$210.00 \sim 250.00$	
Tireroller:	3-4 ton	hour	140.00 ~ 180.00	
	6-8 ton	hour	190.00	
Roadroller:	10-12 ton	hour	160.00 ~ 185.00	
TRANSPORTATION				1
Dump truck:	2 ton	hour	55.00 ~ 80.00	
•	8 ton	hour	60.00 ~ 95.00	
Platform truck:	6 ton	hour	55.00 ~ 80.00	
Tractor-trailer:	20 ton	hour	270.00	÷
FURNISHING & PLA	ACING			
Crawlercrane:	16 ton	hour	750.00	1
	25 ton	hour	900.00	
Truckcrane:	25 ton	hour	930.00	
	100 ton	hour	3,840.00	
Mobilcrane:	25 ton	hour	140.00	ENP
	40 ton	hour	170.00	
	60 ton	hour	205.00	
	60 ton ~	hour	275.00	
WORKING VESSELS				
Suction dredger:	750 ps	hour	2,080.00 *	ENP
Tugboat:	210 ps 15 GT	hour	230.00 *	
Pusher:	1,700 ps 15 GT	hour	1,560.00 *	
Surveyor boat:	170 ps 15 GT	hour	180.00 *	
Pilot boat:	170 ps 15 GT	hour	180.00 *	

Note: The availability depends on the companies and the ENP which own machines. * Estimated

An ENP Paper on the Reformation of Port Management

۸.	Es	quema del Plan de Acción	·	
		<u>Area de Acțividad</u>	Tiespo	Responsabilidad
	1.	Conformación del grupo técnico de trabajo o comité de implementación.	Julio 1992	Institucional
	2,	Definir y decidir la participación del sector privado en la inversión para rehabilitar el suelle de Tela y determinar mecanismos y contratos para la explotación del puerto por los usuarios.	Septiesbre 1992	por Administración
	3.	Efectuar un avalúo técnico de las propiedades e instalaciones de la ENP (excepto las Zonas Libres).	Diciembre 1992	por contrato
	4.	Efectuar un avalúo técnico del equipo portuario.	Diciembre 1992	por contrato
	5.	 Analizar la situación operativa del puerto de La Ceiba, a fin de: a) Transferir las instalaciones y facilidades para el sanejo de carga a la Dirección Gral. de Aduanas; b) Transferir las facilidades de atraque a la Cásara de Comercio o Municipalidad de La Ceiba. 	Dicieobre 1992	por Administración
	6.	Realizar un estudio de costos y tarifas portuarias con énfasis en Puerto Cortés.	Diciembre 1992	por contrato
	7,	En concordancia con la politica de desarrollo portuario, preparar los planes maestros para cada puerto con el objeto de definir inversiones nuevas, complementarias y conexas a las exis- tentes; así como definir el carácter de la inversión (pública, privada o mixta).	Enero 1993	6 . T. T.
	8,	Análisis operativo de los puertos de Cortés, Castilla y Ban Lorenzo, con el objeto de deter- minar los servicios susceptibles de transferir concesionalmente al sector privado, incluyendo terrenos, instalaciones y equipo.	Marzo 1993	6. T. T.

	Area de Actividad	<u>liempo</u>	<u>Responsabilidad</u>
9.	Beleccionar los consultores y tenerlos dispo- nibles en el país.	Abril 1993	B. T. T.
10.	Acciones para concientizar e instruir al sector laboral sobre los beneficios de la privatización.	Junio 1993	G. T. T.
11.	Formular los términos de referencia para las inversiones determinadas en los planes maestros.	Junio 1993	6.T.T.
12.	Desarrollo de los estudios de factibilidad de los proyectos a ejecutar de acuerdo a los dos numerales anteriores.	Junio 1993	6 . T. T.
13.	Establecer sondeos y promocionar las actividades portuarias objeto de privatización.	Octubre 1993	6, 1, 1,
14.	Redefinir con el Gobierno y asesores técnicos, el nuevo papel que desempeñará la ENP en la acti- vidad portuaria; luego que inicie el proceso de privatización, aspectos legales (Ley Constitutiva), organización, influencia participación en el desarrollo comercial de los puertos y otros aspectos relacionados con el transporte marítimo.	Enero 1994	B. T. T.
15.	Preparar planes administrativos, legales, tari- farios, reglamentarios y de personal de la EMP.	Marzo 1994	G. T. T.
16.	Preparar la documentación para la subasta o lici- tación de los servicios a privatizar y conducir el proceso hasta la adjudicación final.	Octubre 1994	G. T. T.

B. <u>Marco Jurídico de la Privatización</u>

Desde el marco jurídico que sustenta la Constitución de la República existen articulos constitucionales como el 103, el cual determina que el Estado de Honduras reconoce, fomenta y garantiza la existencia de la propiedad privada, asimismo hay normas jurídicas especiales como la Ley Orgánica de la Empresa Nacional Portuaria, la cual en su artículo 9, establece en forma clara y contundente que la ENP puede celebrar en cualquiera de los puertos bajo su jurísdicción, contratos con terceras personas bajo los términos y condiciones que se consideran más adecuadas para que se realicen total o parcialmente todos o cualquiera de los servicios de:

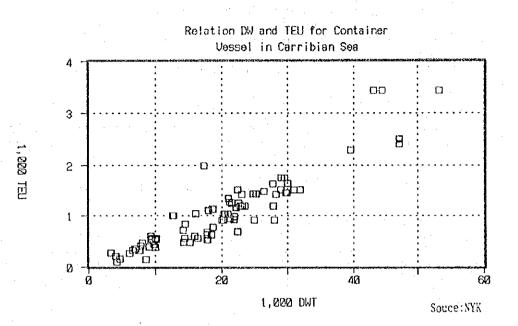
 a) Recepción, anclaje, atraque y desatraque, salida y remolque de las naves;

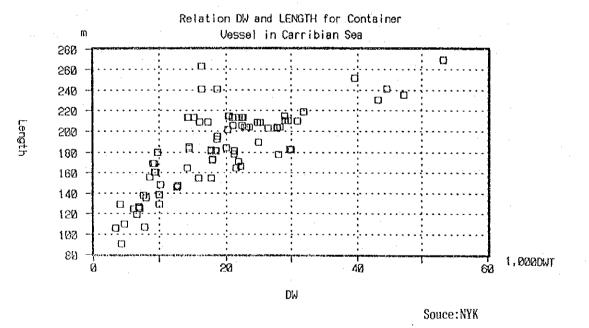
- c) Acarreo, estiba y almacenaje de la carga;
- d) Desplazamiento mecánico y movimiento de la carga;
- e) Ayudas a la navegación y balizamiento;
- f) Control, custodia y vigilancia; y,
- g) Cualesquiera otros servicios que sean necesarios para cumplir los objetivos de esta Ley.

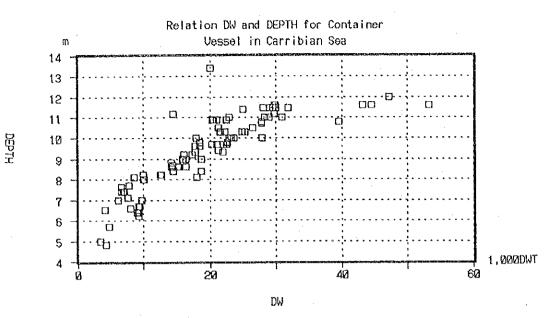
C. Concertación Obrero Patronal para lograr la Privatización

La Empresa Nacional Portuaria suscribió el séptimo Contrato Colectivo con su Sindicato de Trabajadores, dicho Contrato Colectivo en su cláusula número diez (10) establece la reestructuración de personal por tecnificación u otro motivo, la que está supeditada al acuerdo bilateral entre Empresa y Sindicato; por lo tanto existe la norma jurídica que respalda la privatización, siempre y cuando sea producto del acuerdo obrero patronal.

En tal sentido se están desarrollando análisis a efecto de poder lograr un acuerdo que permita la privatización de algunas operaciones portuarias; dentro del análisis preliminar realizado existen labores que tienen características propias que pueden ser objeto de privatización en la Empresa Nacional Portuaria, cabe destacar que actualmente la dirigencia sindical mantiene una conducta negativa, lo que nos hace pensar en la necesidad de obtener a través del diálogo un cambio de actitud, lo cual no será una tarea fácil.









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Figuars and Tables in Volume II

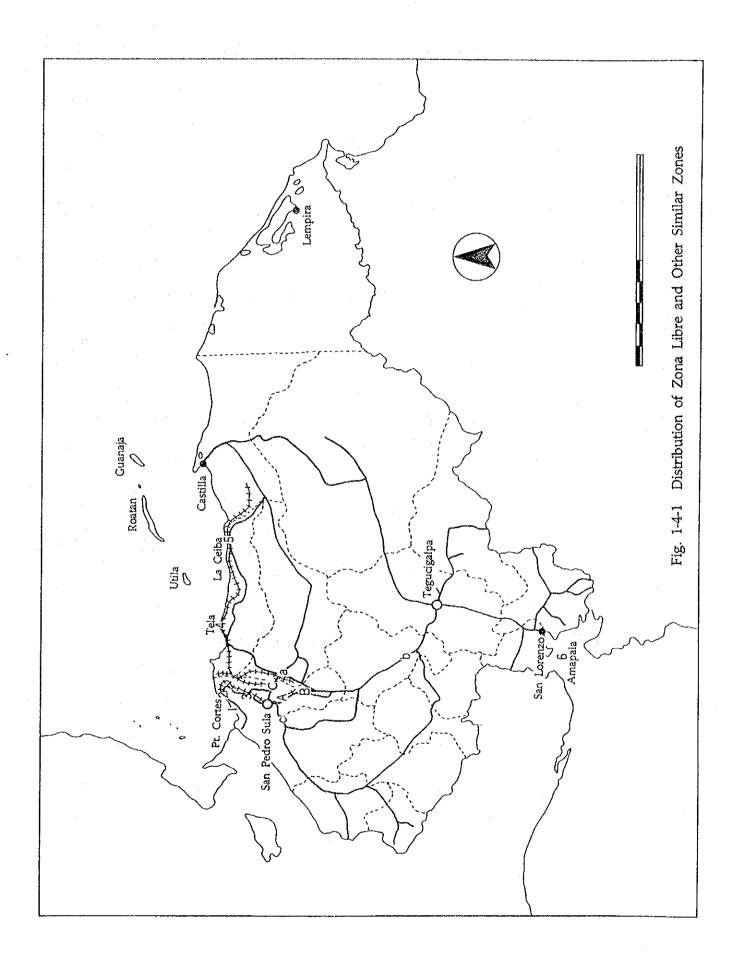


Table 2-1-1	Yearly Change of	Cargo Volume a	t Honduran Ports
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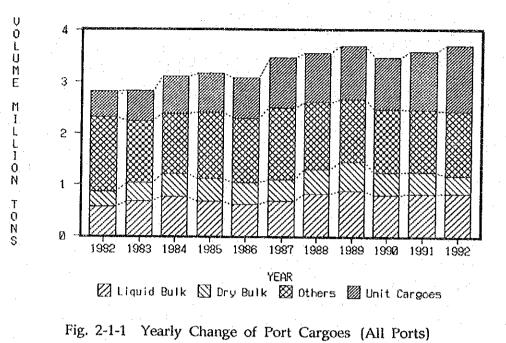
I				····			-		UNIT: THO	DUSAND MI	TIRIC TON
Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
	1				1000	1001	1000	1000	1000	1001	1332
				. <u></u>				1 / 100 / 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 -	1		
Import											
Cortes	986.8	1,188.5	1,323.8	1.177.1		1,396.8	1,499.3	1,573.7	1,543.6	1,630.8	1,530.1
lela	58.6	55.8	57.7	77.9	68.6	79.7	103.7	83.8	65.4	209.0	206.2
<u>La Ceiba</u>	61.7	52.4	50.9	45.6	43.9	25.5	16.5	10.3	7.8	4.4	2.7
Castilla	<u></u>			2.5	1.0	40.4	70.6	114.2	117.5	148.5	153.8
San Lorenzo	11.5	19.4	28.6	28.6	33.5	46.5	61.2	47.7	58.6	38.8	60.4
					:			L			
Total	1,118.6	1,316.1	1,461.0	1,331.7	1,366.7	1,588.9	1,751.3	1,829.7	1,792.9	2,031.5	1,953.2
D-1	100.000	110 000	100.010								
Rate of	100.00%		130.619	119.05%	122.18%	142.04%					174.61%
increase		17.66%	12.95%	-11.56%	3.13%	19.86%	14.52%	7.01%	-3.29%	21.339	-7.00%
Inovona for		17 000	11 010	-8.85%	0.000	10 000	10.000	1 400	. 0.010	10.010	
Increase for previous yea	· ·····	17.66%	11.01%	-0.002	2.63%	16.26%	10.22%	4.48%	-2.01%	13.31%	-3.85%
DI EVIOUS YEA			tal destinacións haisteranas no es		-			1. Marks 100 1 2 7 10 100			
Export	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·					·	· · · · · · · · · · · · · · · · · · ·			
Cortes	1,026.0	1,056.7	1,200.9	1,371.2	1,278.0	1 316 9	1,269.6	1,334.2	1,272.4	1,134.4	1,279.2
Tela	193.0	103.8	141.0	168.5	139.5	159.0	129.1	126.4	53.4	29.9	15.6
La Ceiba	332.6	233.9	206.0	156.9	141.9	90.8	79.7	66.9	8.2	1.7	2.9
Castilla				38.6	67.4	234.9	264.6	278.1	301.7	347.7	386.3
San Lorenzo	136.6	108.5	96	98.5	79.8	69.8	50.5	48.8	43.7	43.5	69.6
									107		
Total	1,688.2	1,502.9	1.643.9	1,833.7	1,706.6	1,871.4	1,793.5	1,854.4	1,679.4	1,557.2	1,753.6
Rate of	100.002	89.02%			101.09%	110.85%	106.24%	109.84%	99.48%	92.24%	103.87%
increase		-10.98%	8.35%	11.24%	-7.53%	9.76%	-4.61%	3.61%	-10.37%	-7.24%	11.63%
							:	· ·			
Increase for		-10.98%	9.38%	11.55%	-6.93%	9.66%	-4.16%	3.40%	-9.44%	-7.28%	12.61%
<u>previous yea</u>	r										
		· · ·									
Cortes	2,012.8	2 245 2	2 624 7	2 548 2	2 107 7	2,713.7	0 700 0	2 007 0	9 91C 0	0 785 0	0 000 0
fela	251.6	159.6	198.7	2, 346. 3	2,497.7 208.1	238.7	2,768.9				
La Ceiba	394.3	286.3	256.9	202.5	185.8	$\frac{236.7}{116.3}$	<u> </u>	210.2 77.2	<u>118.8</u> 16.0	238.9	221.8 5.6
Castilla	0.0	0.0	0.0	41.1	68.4	275.3	335.2	392.3	419.2	<u>6.1</u> 496.2	540.1
San Lorenzo	148.1	127.9	124.6	127.1	113.3	116.3	111.7	96.5	102.3	82.3	130.0
ANT DATE CILLS		101.0	154.0	10(11		110.0		30.0	106.0	02.0	100.0
Total	2,806.8	2.819.0	3.104.9	3, 165, 4	3.073.3	3,460.3	3 544 8	3.684.1	3 472 3	3 588 7	3 706 8
					.,		.,			0,000.1	0,100.0
Rate of	100.00%	100.43%	110.62%	112.78%	109.49%	123.28%	126.29%	131.26%	123.719	127.86%	132,06%
increase		0.43%		2.16%	-3.28%		3.01%		-7.55%	4.15%	
					· · · · · · · · · · · · · · · · · · ·						
Increase for		0.43%	10.142	1.95%	-2.91%	12.59%	2.44%	3.93%	-5.75%	3.35%	3.29%
previous yea	r										

SOURCE: ENP

IMPORTS	Total	Cortes	Tela	La Ceiba	and metric to	
iheat	106,542	106,542		La verba	Castilla	pan Lorenz
Ther foodstuffs	108,041				105	
		103.028	3,431	····	405	1,1
rinks & Tobacco	1.882	1.862		0.005		2
hemicals	55,430	49.379		2,695	1,650	1,70
ats of animal & vegetal extraction	9,238	9,238				
ertilizers	109,071	88.833			18,172	2.00
Petroleum and derivates	807,410	596,147	202,722		8,532	
ron & Steel	94,472	53, 248			-17	41.20
lachinery & Transportation equipment		21.776			233	8,49
Paper and carton in rolls	18,669	17.042			1,577	
Ithers	291,710	223,613	15	4	62,667	5,41
ransit traffic	· · · · · · · · · · · · · · · · · · ·					
Domestic transit	262,365	204, 181	<u>}</u>		58,184	
oreign transit	57,873	55,231			2,362	28
			1	**** balds as a 5+17-142 ers brake-** (vite 64		
TOTAL IMPORTS	1,953,208	1,530,120	206, 168	2,699	153, 799	60.42
	110001000		200,100	4,000	100,700	00.42
······································	· ·		L	L	h	L
EXPORTS	Total	Cortes	Tela	La·Ceiba	Castilla	San Lorenz
eat	17,238	17.147	liela	Larcelloa	Cascilla	
lantains	17,230					9
		13,370	11.000	_	0.40,000	· · ·
ananas	792,502	529.378	14.890	4	248,230	
ure of bananas	12,682	12,262	420			
offee	118,756	106.822				11,93
ugar	12,820	12,820				
obacco	4,009	4,009				.
imber	112.558	81,472			177	30,90
ement	29.167	29,167				
agged cement	0					
orn or maize	0					
ulk minerals	87,325	72, 325				15.00
uel and derivates	0					
olasses	31,257	23, 546				7,71
frican Palm-oil	10,515	2.038			8,477	
uts & African palms	0					
ineapples	48,547	7,863			40,684	·
oconuts	1,921	492			1,429	
rapefruit	16,986	1, 121			15,865	
elons	58.028	57,691	267		10,000	
otton	0	37,031	201	··-···		
otton seeds	0					• •
rnamental plants	260				200	
	200	000 000		0.070	260	
ther products	358,629	282,983		2,976	69.044	3,62
nother countries materials	27.208	24,687			2,153	36
THE ALL FUELONING	1 000 000					
TOTAL EXPORTS	1,753,778	1,279,193	15,577	2,980	386,389	69,63
TOTAL IMPORTS + EXPORTS	3,706,986	2,809,313	221,745	5,679	540,188	130.06

Table 2-1-2 Volume of each Cargo by Ports (1992)

Source: ENP



-228-

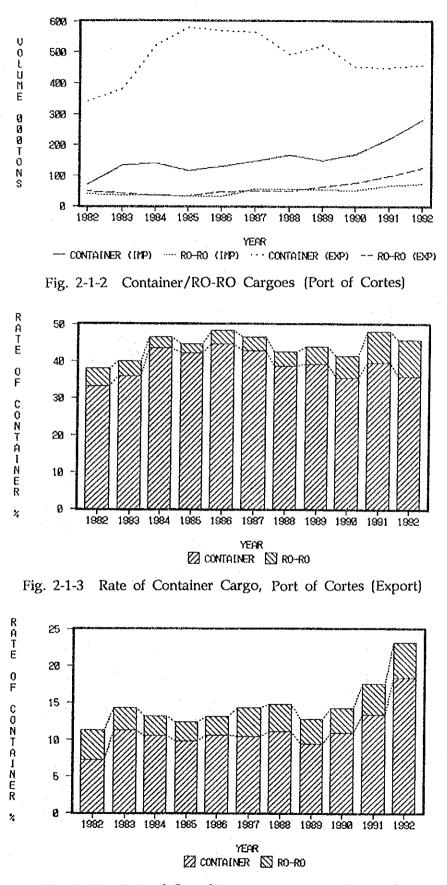


Fig. 2-1-4 Rate of Container, Port of Cortes (Import)

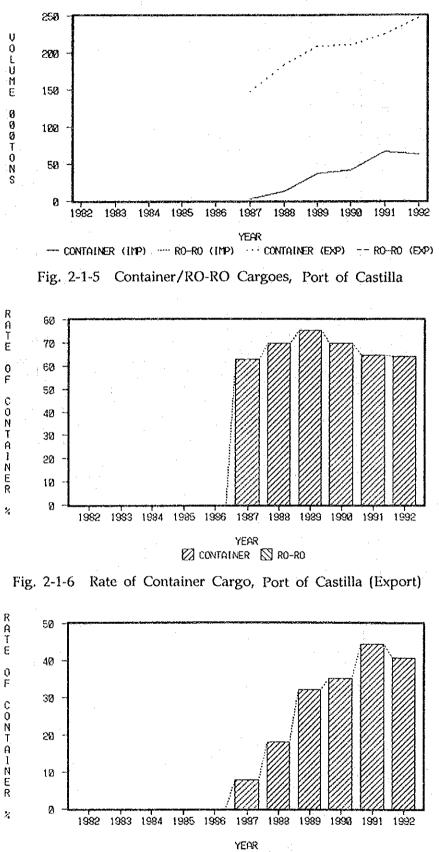
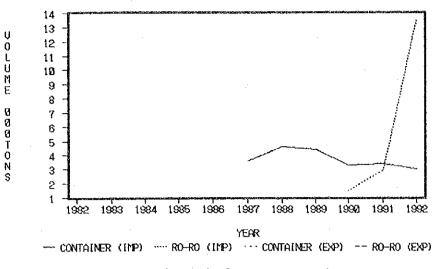
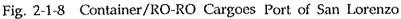


Fig. 2-1-7 Rate of Container Cargo Port of Castilla (Import)





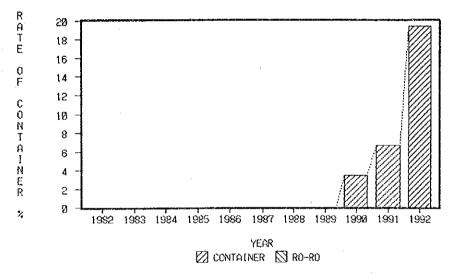


Fig. 2-1-9 Rate of Container Cargo Port of San Lorenzo (Export)

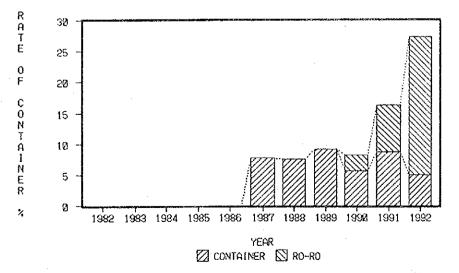


Fig. 2-1-10 Rate of Container Cargo Port of San Lorenzo (Import)

	Corl	les	Casti	11a	San Lorenzo			
	Import	Export	Import	Export	Import	Export		
1982	69.3	15.8						
1983	60.8;	17.6						
1984	66.9	15.5						
1985	70.4	13.0						
1986	70.1	12.3						
1987	60.6	17.8	97.8	0.5	1.0	99.8		
1988	54.2	18.9	92.0	0.3	0.2	100.0		
1989	55.4	17.1	73.6	0.7	0.4	95.3		
1990	54.9	17.8	70.3	0.8	3.8	79.6		
1991	44.3	17.6	64.0	2.5	7.3	57.8		
1992	41.2	23.7	70.0	4.8	61.4	12.4		

Table 2-1-3 Rate of Empty Container (%)

		- inclusion of the second					unit:MT
		Import			Export		Unit
	Loaded	Total	Unit	Loaded	Total	Unit	Weight
	Contner	Volume	Weight	Contner	Volume	Weight	Total
1982	13,800	110,900	8.04	38,500	390,100	10.13	9.58
1983	21,500	169,000	7.86	42,500	422,600	9.94	9.24
1984	21,400	173,600	8.11	54,900	556,400	10.13	9.57
1985	19,600	145,400	7.42	58,100	611,800	10.53	9.75
1986	20,300	159,000	7.83	59,200	616,900	10.42	9.76
1987	28,400	200,500	7.06	60,000	614,300	10.24	9.22
1988	30,200	221,300	7.33	52,700	540,000	10.25	9.18
1989	35,200	201,100	5.71	57,500	585,000	10.17	8.48
1990	29,000	219,200	7.56	60,400	527,700	8.74	8.35
1991	38,800	286,200	7.38	56,600	547,200	9.67	8.74
1992	49,800	355,400	7.14	62,100	584,400	9.41	8.40

Table 2-1-4 Unit Weight Per TEU Port of Cortes

Table 2-1-5 Unit Weight Per TEU Port of Castilla

							unit:MT
		Import			Export		Unit
	Loaded	Total	Unit	Loaded	Total	Unit	Weight
	Contner	Volume	Weight	Contner	Volume	Weight	Total
1982					· · · · · · · · · · · · · · · · · · ·	*	
1983							
1984							
1985							
1986							
1987	398	3,200	8.04	16,488	147,800	8.96	8.94
1988	1,758	12,800	7.28		184,400	8.50	8.41
1989	6,328	36,700	5.80	23,242		9.01	8.32
1990	7,182	41,300	5.75	23,130	210,200	9.09	8.30
1991	9,558	66,000	6.91	24,824	224,700	9.05	8.46
1992	9,168	62,600	6.83	27,168	247,000	9.09	8.52

Table 2-1-6 Unit Weight Per TEU Port of San Lorenzo

							unit:MT		
		Import			Export		Unit		
	Loaded	Total	Unit	Loaded	Total	Unit	Weight		
	Contner	Volume	Weight	Contner	Volume	Weight	Total		
1982							1		
1983									
1984									
1985									
1986					•••••				
1987	513	3,600	7.02	1			7.00		
1988	505	4,600		0			9.11		
1989	513	4,400	8.58	22	•••••••••••••••••		8.22		
1990	433		7.62	94	1,500	15.96	9.11		
1991	328	3,400	10.37	189	2,900	15.34	12.19		
1992	390	3,000	7.69	829	13,500	16.28	13.54		

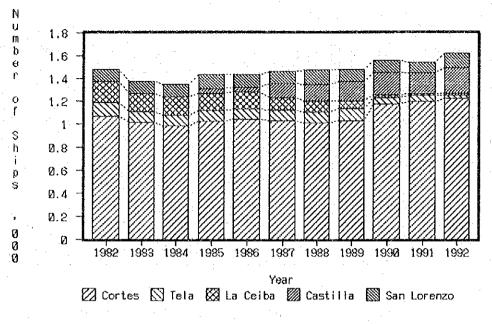


Fig. 2-1-11 Yearly Change, Number of Calling Ships

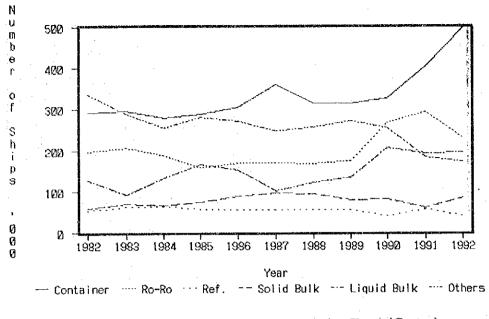


Fig. 2-1-12 Yearly Change, Calling Ship by Type (Cortes)

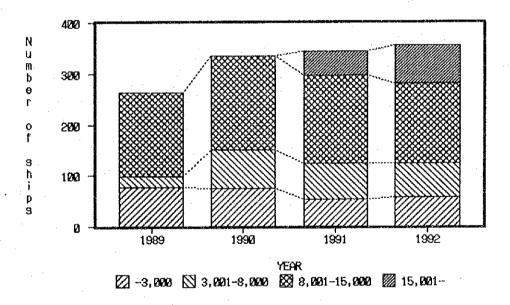


Fig. 2-1-13 Calling Vessel Size, Reefer (all)(Cortes)

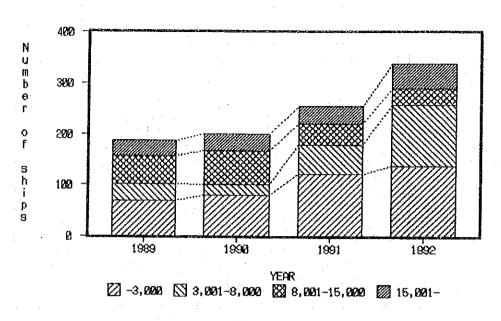


Fig. 2-1-14 Calling Vessel Size, Container (Cortes)

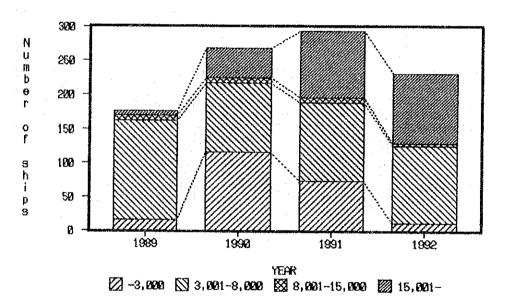


Fig. 2-1-15 Calling Ship Size, RO-RO Vessel (Cortes)

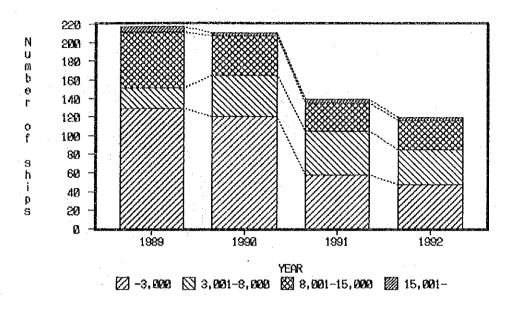


Fig. 2-1-16 Calling Vessel Size, Conventional Vessel (Cortes)

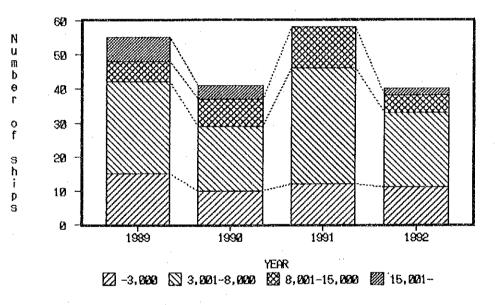


Fig. 2-1-17 Calling Vessel Size, Solid Bulk (Cortes)

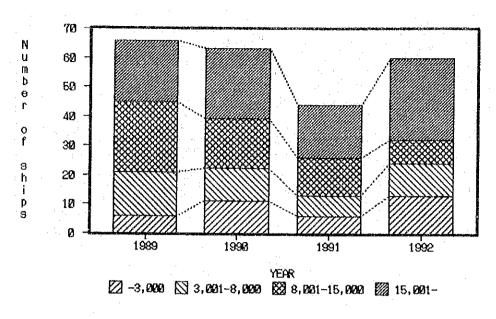


Fig. 2-1-18 Calling Vessel Size, Oil Tanker (Cortes)

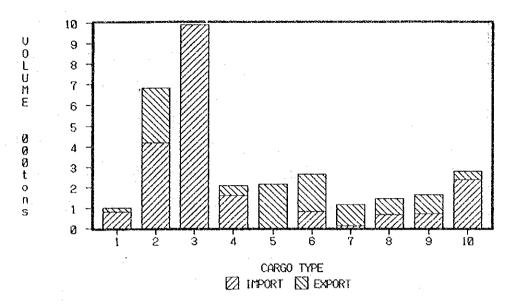


Fig. 2-1-19 Average Cargo Volume per Ship (Cortes)

		IMPORT	EXPORT	TOTAL	
1	CONVENTIONAL	801.7	170.3	971.9	
2	SOLID BULK	4,186.9	2,673.6	6,860.5	
3	OIL TANKER	9,906.1	0.0	9,906.1	
4	CHEMICAL TANKER	1,590.1	476.1	2,066.2	
5	REEFER BANANA	7.3	2,145.7	2,153.0	

824.0 105.8 654.9

693.2 2,372.1

6 7

. 8 9

10

BANANA LO-LO

TIMBER

RO-RO

CONTAINER

TUG BOAT

2,647.7 1,153.8 1,445.0

1,618.6

2,775.4

1,823.81,048.0

790.0

925.4

403.4

Table 2-1-8 Number of Ocean Going Vessels Calling at Major Honduran Ports

		<u>.</u>	÷.,	•		: 1			(unit	:Vess	els)
Kind of Vessels	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Conventional G,C.	314	281	255	288	310	281	330	321	297	223	176
Refrigerater Vessls	352	253	295	311	294	218	240	267	278	248	254
Lumber	113	102	90	102	104	102	59	51	38	33	34
Solid Bulk	59	67	69	60	60	58	61	61	50	66	47
Liquid Bulk	76	87	80	98	104	109	109	90	94	78	117
Container	292	296	279	288	304	432	409	415	431	520	667
Ro-Ro	198	206	191	170	178	189	196	197	294	322	259
Dters	73	77	87	124	81	73	70	80	74	48	67
lotal	1477	1369	1346	1441	1435	1462	1474	1482	1556	1538	1621
Souce: ENP			,								

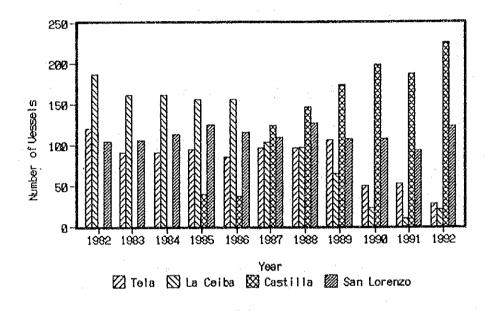


Fig. 2-1-20 Number of Ocean Going Vessels at Major Honduras Ports (except Cortes)

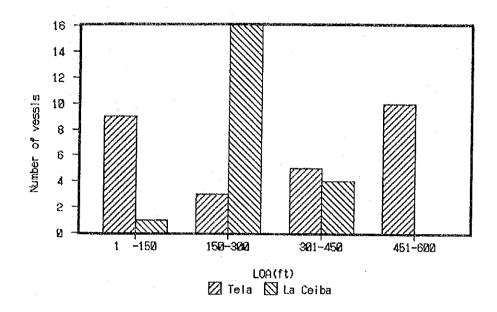


Fig. 2-1-21 Number of Ocean Going Vessels by Length at Tela & La Ceiba in 1992

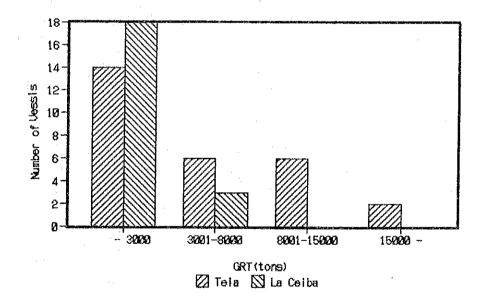


Fig. 2-1-22 Number of Ocean Going Vessels by Size at Tela and La Ceiba in 1992

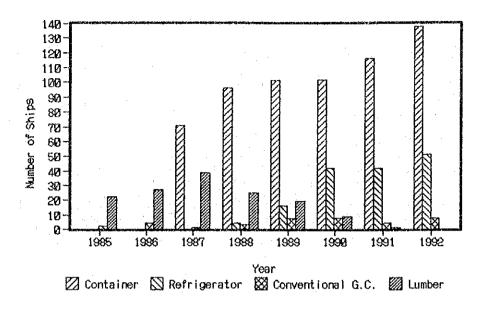


Fig. 2-1-23 Number of Calling Vessels by Type at the Port of Castilla

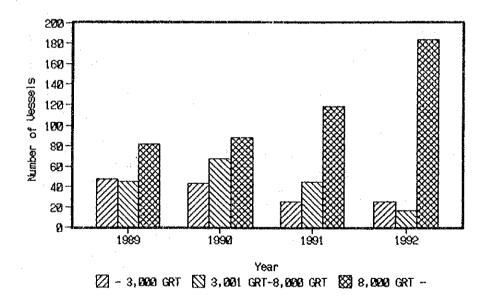


Fig. 2-1-24 Number of Ocean Going Vessels by Size at the Port of Castilla

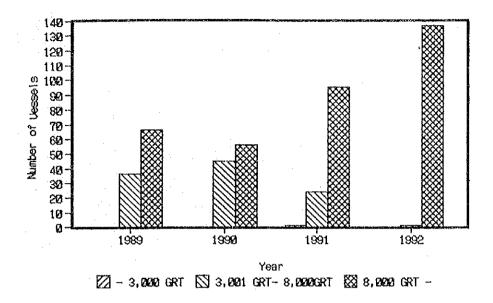


Fig. 2-1-25 Number of Calling Container Vessels by Size at the Port of Castilla

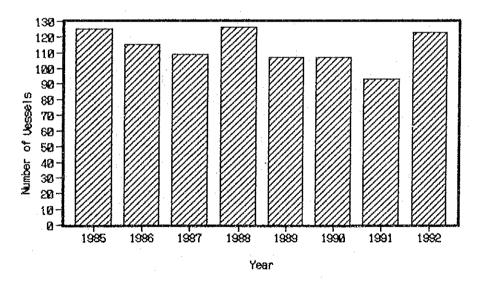


Fig. 2-1-26 Number of Ocean Going Vessels at the Port of San Lorenzo

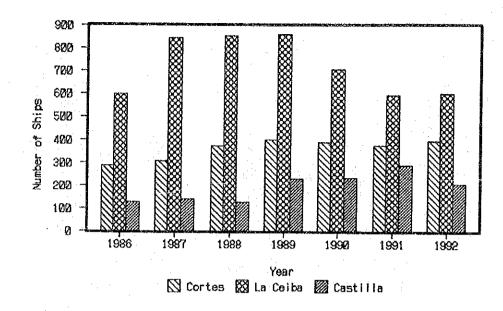


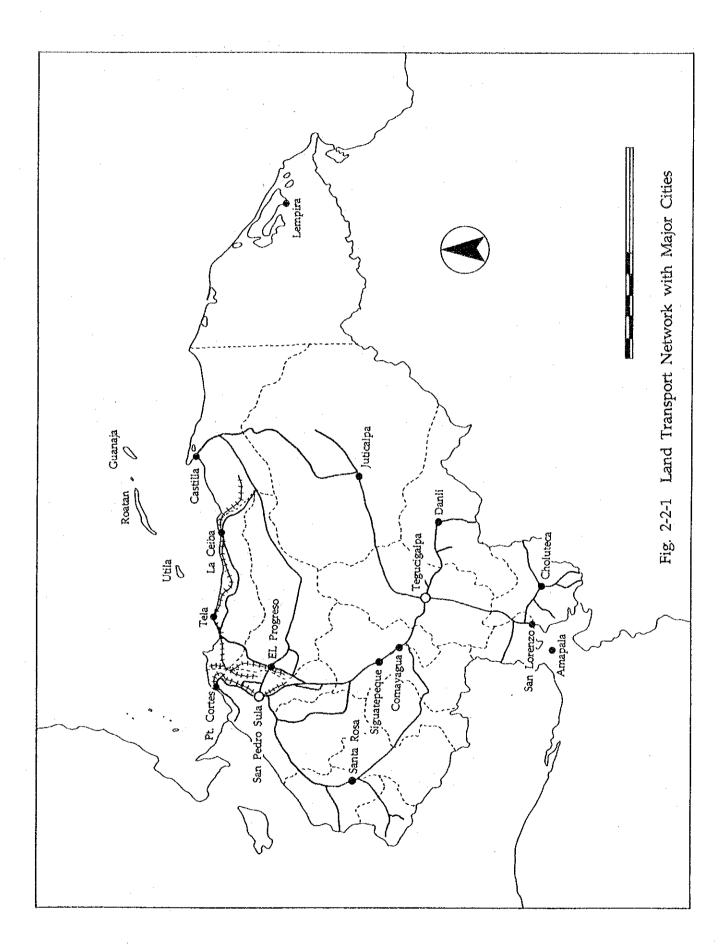
Fig. 2-1-27 Number of Domestic Trade Ships

	PORT OF	CORTES	LA·C	EIBA	PORT OF	CASTILLA		
	NUMBER OF		NUMBER OF		NUMBER OF		TOTAL	
	SHIPS	CARGO VOLUME	SHIPS	CARGO VOLU	SHIPS	CARGO VOLUME	CARGO VOLUM	
1986	287	34.440	598	29,900	125	10,000	74,340	
1987	305	36,600	845	42,250	140	11.200	90,050	
1988	372	44,640	855	42.750	127	10,160	97,550	
1989	397	47.640	860	43,000	230	18.400	109,040	
1990	387	46.440	708	35,400	231	18,480	100, 320	
1991	374	44,880	593	29,650	288	23,040	97,570	
1992	396	47,520	602	30,100	205	16,400	94.020	
			······································					

Table 2-1-9 Estimated Domestic Cargo Volume

FOR PORT OF CORTES	FOR LA·CEIBA	FOR PORT OF CASTILLA
Net ton/vessel	Net ton/vessel	Net ton/vessel
120.00	50.00	80.00

SOURCE: ENP, MARINA MERCANTE NACIONAL, AND ESTIMATED BY STUDY TEARM



Owner	Operator	Length	Gauge	Region
FHN	FHN	114km	1.07m	San Pedro Sula Port of Cortes
FHN	Tela Railroad	179km	1.07m	Plantations in Ulua Valley Port of Tela Port of Cortes
tandard Fruit	(out of service)	157km	0.91m	North Coast between Tela and Balfate Branch lines to Upper Aguan Valley

Table 2-2-1 Outline of Railroads in Honduras

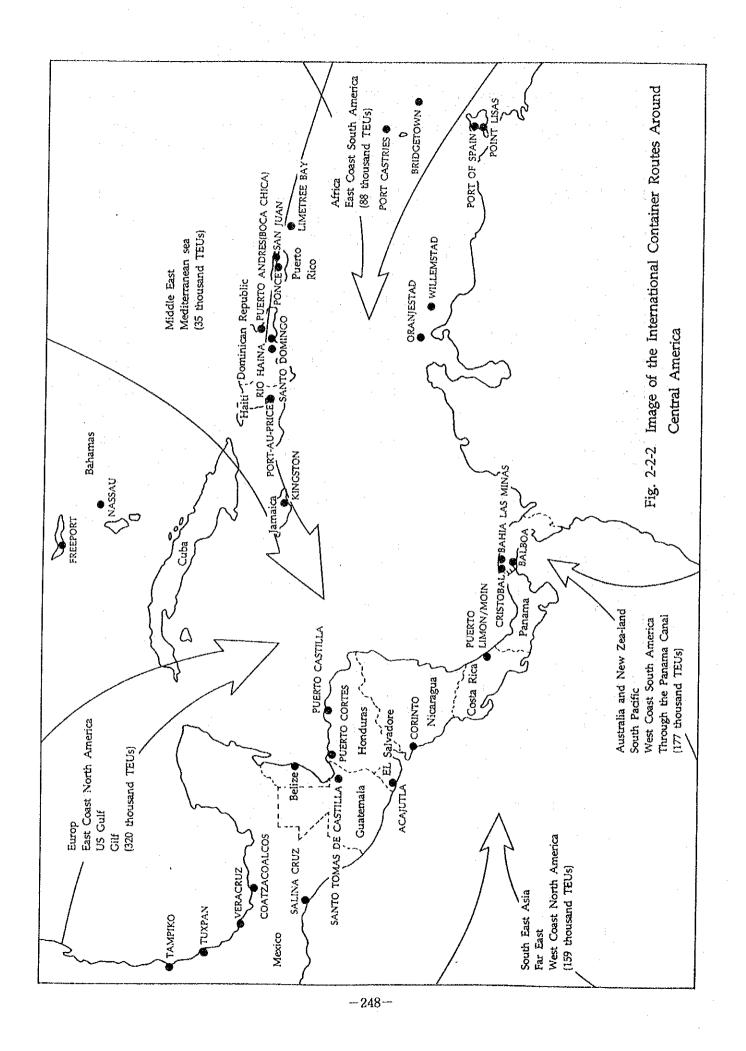
Table 2-2-2 Distances between Major Ports and Major Cities

	Choluteca	Comayagua	Danli	E1	Progres	oJuti	calpa	San	Pdro	SlaSanta	RosaSi	iguatepequ	eTegucigalpa
Pt. Cortes	445	221	441	2	85	4	98	-	57	221		189	303
Tela	474	236	447		63	5	60	-	90	245		203	338
La Ceiba	486	362	552		170	: 6	39		198	350	Ĩ	330	444
Castilla	811	604	794		395	8	81		440	724	į	572	686
San Lorenzo	34	190	216		382	2	73		354	469		222	108

· .	Route				TEU			Route				TEU
C Am feeder		;	;	1	402	Carib	ECSA	WCNA		;		2832
C Am Carib					43	Carib	Eur			1		13658
C Am Carib		Af	FE			Carib						804
C Am Carib		:				Carib		ECNA		}		1599
C Am Carib		ECNA	1			Carib		-				1641
C Am ECNA						Carib				-		678
C Am ECNA	FE					Carib				1		107
SC Am GC	ECNA	4 · · · · · · · · · · · · · · · · · · ·		;		Carib		ECSA				4520
SC Am Med						Carib		Med				1316
C Am USGC			1			Carib						827
C Am USGC	Ent			••••••••••••••••••••••••••••••••••••••	11357			FE				534
	Med			********		GC	ECNA	ANZ				4950
SC Am WC Am		ECSA	Af	FE	336		ECNA	Af				2890
SC Am WC Am		NCNA			2954		ECNA	ECSA				12853
	Med					ĞČ	ECNA	Eur				16602
	Med			₹• †		GC	ECNA	Eur	Af			204
	WCNA	·····			1256	GC	ECNA	FE	/***····			17261
IC Am Eur		; 			1596		ECNA	FE	SEA	ME		8468
IC Am FE				••••		GC	ECNA	ME				9588
	: FE				12236		ECNA	Med				8872
IC Am WCSA	<u>гы</u>				1091		ECNA	S Pac	¦,			1342
	FE	•••••••••••••••••••••••••••••••••••••••			12062		ECNA	W Af				2648
ICNA FE	1.11	<u>.</u>				GC	ECNA	WCSA				1287
	: Eur	; FE				GC	Eur	Med	SEA			1066
SCNA WCSA	Eur :	<u>ғ</u> ы			8972		USGC	ECNA	Af	. <u>.</u>		1954
	Med	FE			36191				<u></u>			125
	neu	<u>, , , , , , , , , , , , , , , , , , , </u>					ECNA	a;	•••••••	÷	• • • • • • • • • • • • • • • • • • • •	1284
ICSA FE	Af	; 99	•••••		4218	USGC	ECNA	ECSA	WCSA			146
		FE		¦ .	3275	houc	ECNA		Eur	: FE		19650
	WCSA				1728		WCSA	ANL	សូល	1.12		2264
CSA WCSA			<u>.</u>		1564			• • • • • • • • • •				7578
Carib(inter)		•	·		4869		Eur	FE		·	· • • • • • • • • • • • • • • • • • • •	15872
Carib ECNA	PCOL		<u>.</u>			WCSA	Eur	1 <u>.</u> 1.	:			10393
arib ECNA							Eur	FE	;		-	928
	Med	¦			3238		Af	<u>r</u> E		·····		920 664
	WCSA		<u>.</u>			WCSA	Med					705
	Eur			ļ	044	WCSA	Af		<u>. </u>		<u>.</u>	
	USGC	;		1	1150	LICHA J	Jant a	and Ma				<u>368,980</u>
lote EC Am:								oast No				
			Central					past Sc	uun Al	ler10a		
			orth Am				r east					
		ast Sc	outh Am	erica		Af:Afi		1				
GC:Gul							idle ea		_			
Eur:Eu								Pacifi				
Med:Me								ast Asi				

Table 2-2-3 International Container Shipping Routes around Honduras in 1990

Souce:Containerization International Year Book, 1992



	Major Previous Port			(%)
CONVENTIONAL	CARTAGENA	6	HOUSTON, TX	12
BREAK BULK	HAMBURGO	6	MIAMI, FL	10
	HOUSTON, TX	6	TAMPICO	8
	PORT EVERGLADES, FL	6	NUEVA ORLEANS, LA	6
			PORT EVERGLADES	6
REFRIGERATED	ZEEBRUGGE	26	PORTSMOUTH	32
BANANA	GOTEMBURGO	15	BREMERHAVEN	22
	BREHERHAVEN	8	GOTEMBURGO	14
	ANTWERP	8	SALERNO	9
	PORTSMOUTH	8	ANTWERP	4
	· ·		TAMPA, FL	4
BANANA LO-LO	GULFPORT, MISS	67	GULFPORT, MISS	61
	WILMINGTON, DE		SAVANNAH, GA	16
8			WILMINGTON, DE	10
CONTAINER	NUEVA ORLEANS, LA	20	NUEVA ORLEANS, LA	31
VESSELS	WEST PALM BEACH	14	WEST PALM BEACH	13
	PORT EVERGLADES, FL	12	MIAMI, FL	13
	GENOVA	4	TAMPA, FL.	8
	HAMBURGO	4	-	
	HOUSTON, TX	4		
	KINGSTON	4		
OLL-ON/ROLL-OFF	MIAMI, FL	71	MIAMI, FL	68
	NUEVA ORLEANS, LA		NUEVA ORLEANS, LA	15
			PORT EVERGLADES, FL	9

Table 2-2-4 Major Next Port and Previous Port of Calling Vessels at the Honduran Ports in the Caribbean Sea

Table 2-2-5 Major Next Port and Previous Port of Calling Vessels at the Honduras Ports in the Pacific Ocean

Kind of Vessels	Major Previous	Port (%)	Major Next Port	(%)
CONVENTIONAL	HONG KONG	16		44
BREAK BULK	HIROSHIMA	16	PUERTO QUETZAL	17
	BENAVENTURA	16	ACAPULCO	11
	YOKOHAMA	12	PUERT CALDERA	11
	RIO DE JENEIRO	12		
CONTAINER and	SAN FRANCISCO	15	KOBE	41
RO/RO	ACAPULCO	15	ACAPULCO	23
	NAGOYA	15	LOS ANGELS	14
	KOBE	15	SAN FRANCISCO	9
	YOKOHAMA	6		
	HIROSHIMA	6		1
	PUERTO QUETZAL	6		
	LOS ANGELS	6		

Souce:ENP

· · · · · · · · · · · · · · · · · · ·	Unit	No. 1	No. 1-A	No. 2	. No. 3	No. 4	No. 5
Date of		Lates 50'S	1991	1919	1955	1969	1975
Completion		1992		:			
Background		Dredging of		Damaged by	Expansion	Strengthen	Strengthen
	. 	Maintenance.		Guatemala	of width by	slab in 1985.	slab in 1989.
		Dredging		Earthquake	10.0m in		
		volume:		in 1976,	1984.		
		Approx. over		After that,			
	:	200,000 m3		subsidence.			
		per year.	· · · ·				
Wharf						· · · · ·	
Length	m.	24.4	120	293	¹¹ 150 .	347	352
Width	m.	11.0	6.0	18.3	46	53	53
Crown Height	m.	- - -	· • • •		+1.93	+1.93	+1.93
Water Depth	m.	-9.3	-10	***	-10.6	-8.8	-11.0
Type of Wharf		Dolphin of	Pier and	Open-Deck	Open-Deck	Same as	Same as
		Steel Piles	Dolphin of	Pier, on	Pier, on	No. 3	No. 3
		Ξ.	Concrete	Concrete	Concrete		
			Piles	Piles	Piles		
Approach Trestle	m.	100 x 3	100 x 5	Open-Deck	Open-Deck	Same as	Same as
		Open Deck	Open Deck	Pier, on	Pier, on	No. 3	No. 3
		Pier, on	Pier, on	Concrete	Concrete		•
:		Steel Piles	Concrete Piles				
Number of Tracks		None	None	3	2	2	4
on Apron							
Main Cargoes		Oil	Sugar	Out of	Gen. cargo.	Gen. cargo.	Containers
		(TEXACO)	Molasses	service	Banana.	Banana.	Ro/Ro

Table 2-3-1 Physical Characteristics of Port Cortes

Note: Crown Height is meters above M.S.L. Water Depth is meters below M.L.W.

		Location	Floor Area (sq. m)	Height (m)	Capacity (cu. m)
Warehouse	Warehouse No. 1	Behind Wharf No. 3	4,810	7.3	35,000
or Shed	No. 2	Behind Wharf No. 2	2,220	6.7	14,900
	No. 3	Behind Wharf No. 3	3,200	3.6	11,500
	No. 4	Behind Wharf No. 4	4,990	6.8	33,900
	Dangerous Cargo W. H.	Behind Wharf No. 4	437	4.4	1,920
	Remate Warehouse	Behind Wharf No. 3	485	3.5	1,698
	T. R. R. Co. Office	Same Building	423	5.5	2,115
		as Warehouse No. 3			
	Cofee Warehouse	Same Building	423	5.0	2,115
		as Warehouse No. 3		<u></u>	
·	Fyffes Office	Same Building of	377	3.5	1,320
		Remate Warehouse			
	Total		17,365		104,468
Factory	Maintenance Shop	Near the Gate No. 3	440		
	Mechanical Factory	Near the Gate No. 3	410		·
	Service Building	Near the Gate No. 3	960		
	Refuel Station	Near the Gate No. 6	1,000		
Office	ENP Office	Near the Gate No. 6	640		· · · · · · · · · · · · · · · · · · ·
•	Superintendent Office	Next to Warehouse No. 1	1,800		

Table 2-3-2 Physical Characteristics Building in Port Cortes

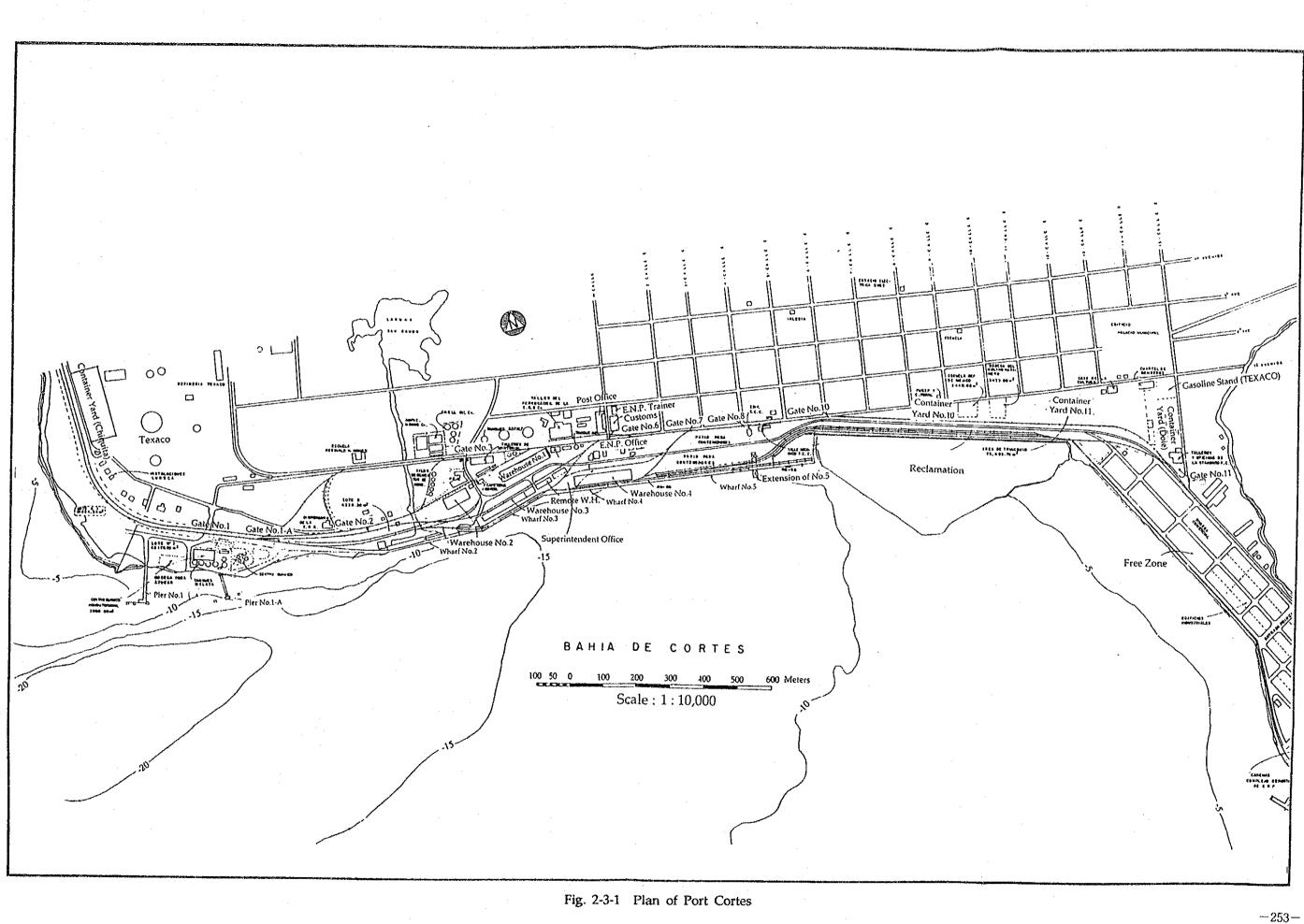
	1		I	1		1	T
·····	Unit	Tela	La Ceiba	Castilla	San Lorenzo	Amapala	Roatan
Date of	Ì	1914	1970	1983	1973-1977		
Completion	ļ						
Background		Destroyed by	· ·				
•••••	L	a fire in 1992					
Wharf			an a		· .		
Length	m.	547.70	237.74	150.0	295.0	9.6	32.5
Width	m.	22.0/9.0	16.5/11.0	38.0	37.8/25.2	1.6	4.8
Crown Height	m.	3.60	3.20	2.5	1.4	2.0	1.3
Water Depth	m.	-10.5/-8.3	-11.0	-11.0	D.L -9.0/-5.0	1.5	-3.0
Type of Wharf		Wood Pier	Wood Pier	Concrete Pier	T-type Pier	Rubble Jetty	Wood Pier
1. A. A. A. A				on Concrete	on Concrete		
				Piles	Piles	·	
Number of Tracks		Two Approach	Two Approach	Rail for			
on Apron		Trucks	Trucks	Container			
		Four Loading	Four Loading	Crane		1	
		Trucks	Trucks				
Approach Trestle	m.				160 x 15	20 x 5.60	
Building							
Warehouse*	sq.m		270	5,960	5,420		
Work Shop	sq.m			17 x 48			
ENP Office	m.	10.98 x 13.61	32.22 x 39.70	30 x 32	14 x 26		
Government Office	m.			30 x 32			
Public Office	m.	4.27 x 11.89	11.50 x 16.50				1,200 sq.m
	m,	3.50 x 17.35					

Table 2-3-3 Physical Characteristics of Port Facilities

Note: Crown Height/Water Depth is above/below M.S. L.

* Details of Warehouse are as follows:

	Floor Area	Height	Capacity
	(sq.m)	(m)	(cu.m)
La Ceiba			
Warehouse	270	8.70	1,800
Castilla			
5A Lumber Storage	2,980	8.40	19,000
5B Lumber Storage	2,980	8.40	19,000
Total	5,960		38,000
San Lorenzo			
Lumber Shed	1,200		
General Cargo Shed	2,410		·
Cotton Shed	1,810		····
Total	5,420		



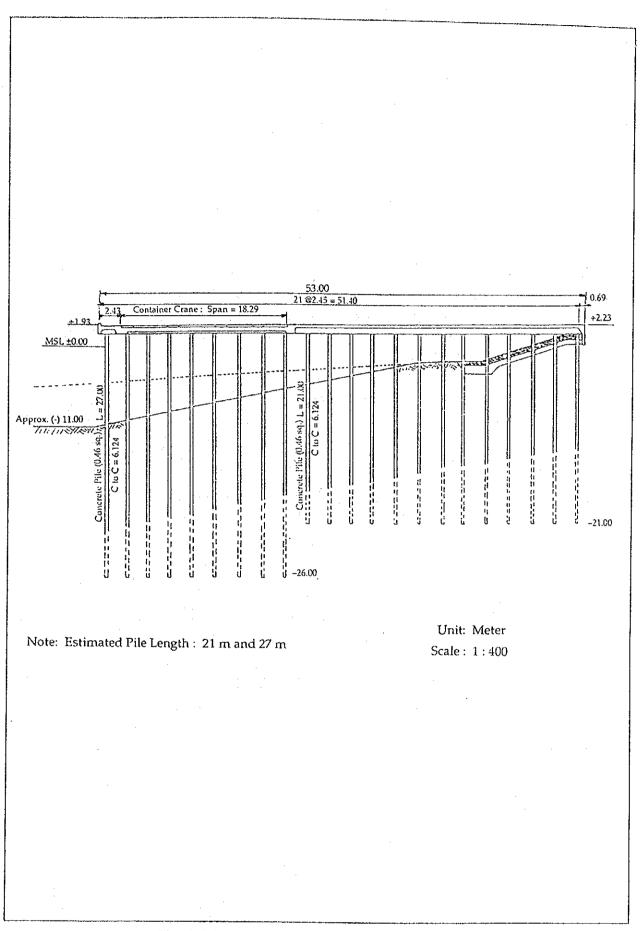


Fig. 2-3-2 Typical Cross Section of Wharf No.5

-255-

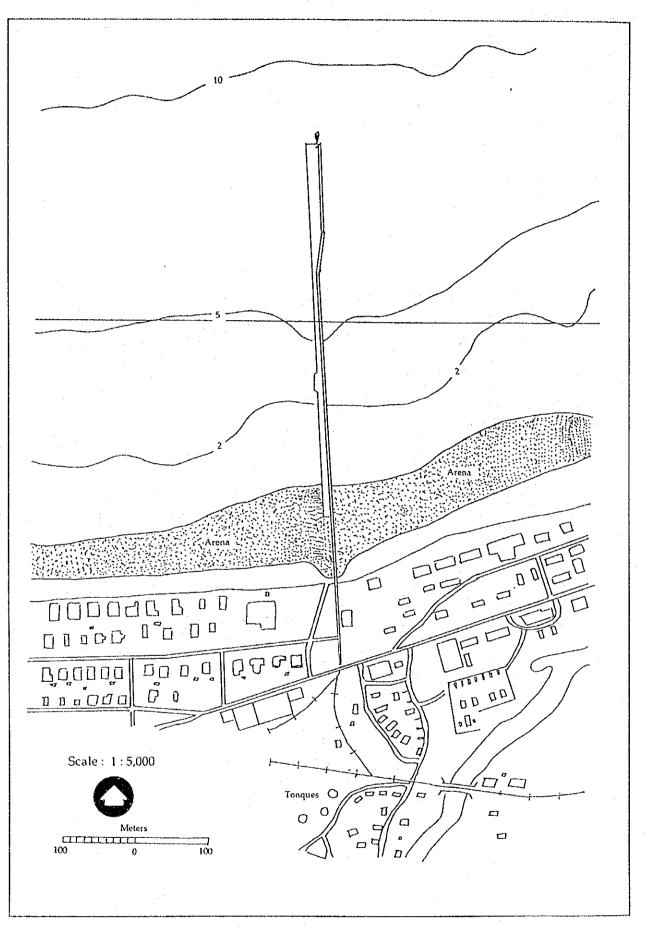
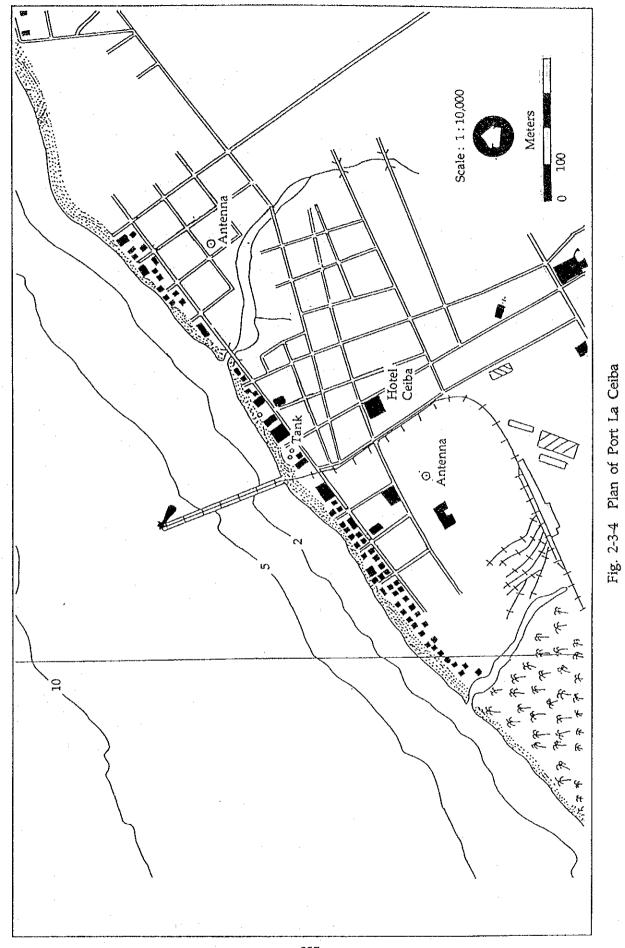
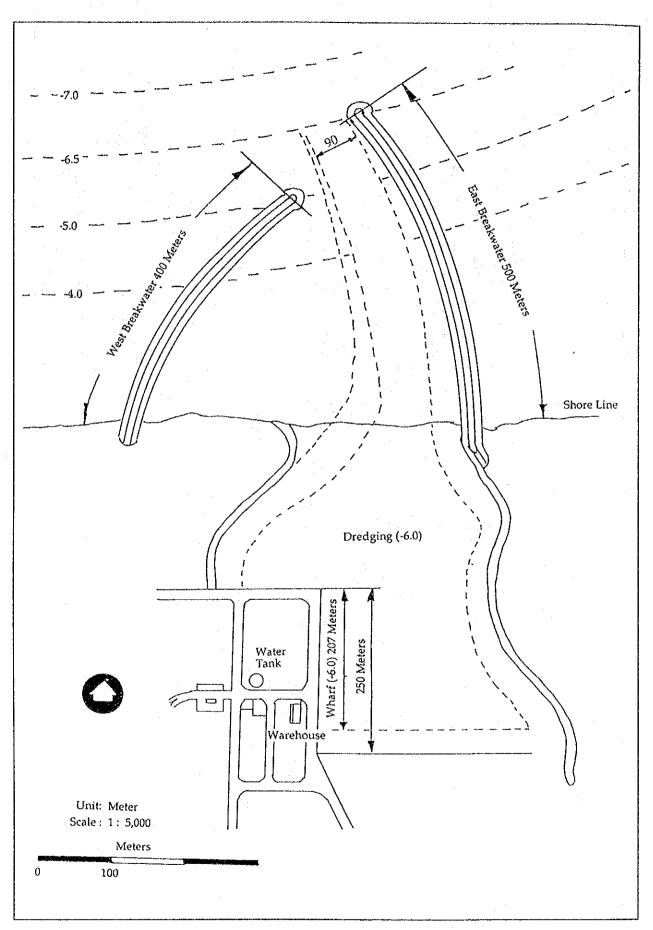


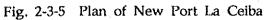
Fig. 2-3-3 Plan of Port Tela

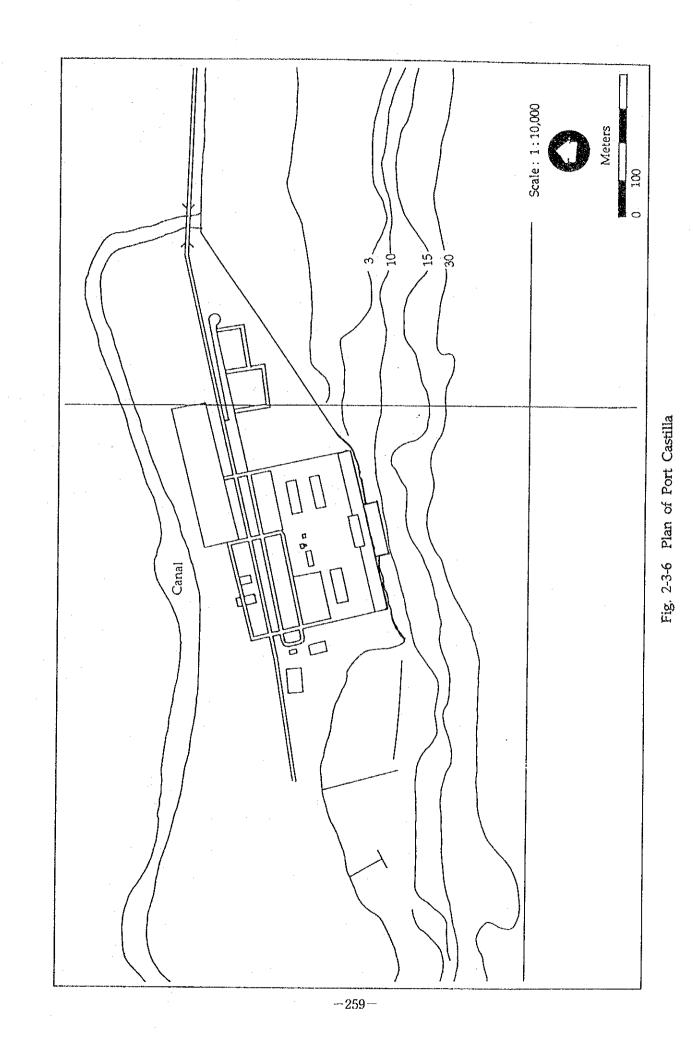
-256-



-257-







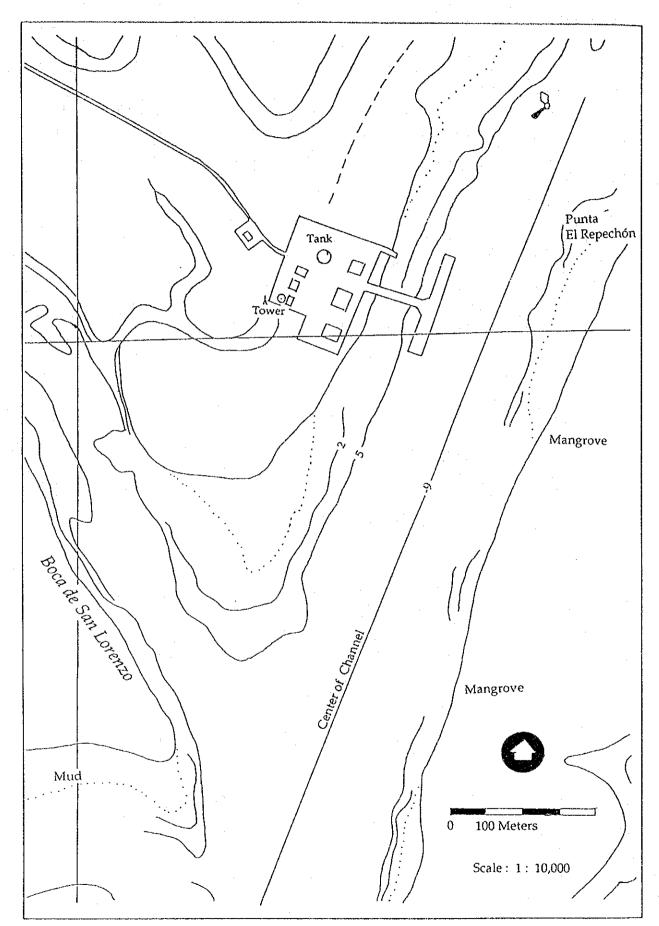
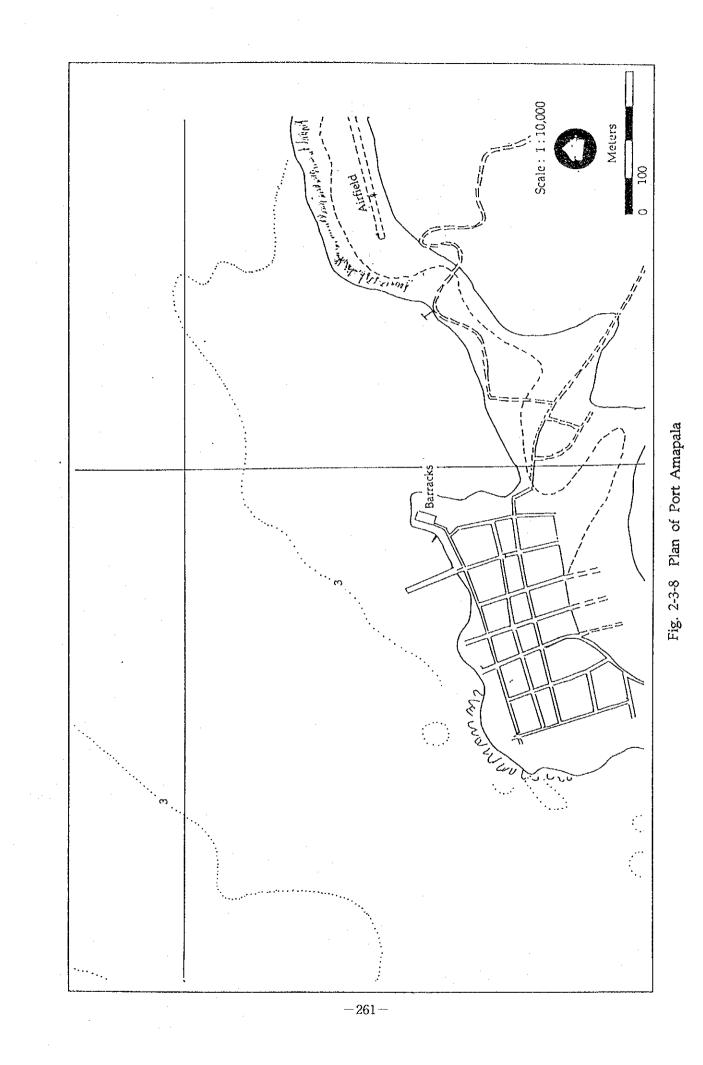
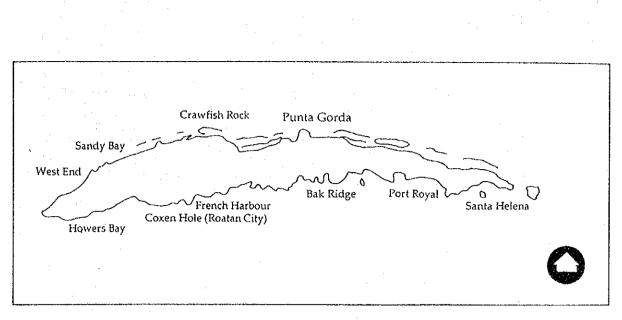
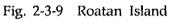


Fig. 2-3-7 Plan of Port San Lorenzo







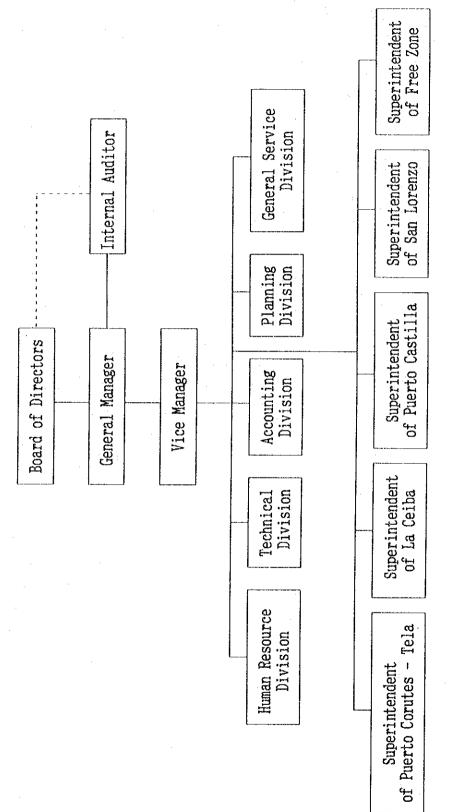


Fig. 2-4-1 Organization of ENP

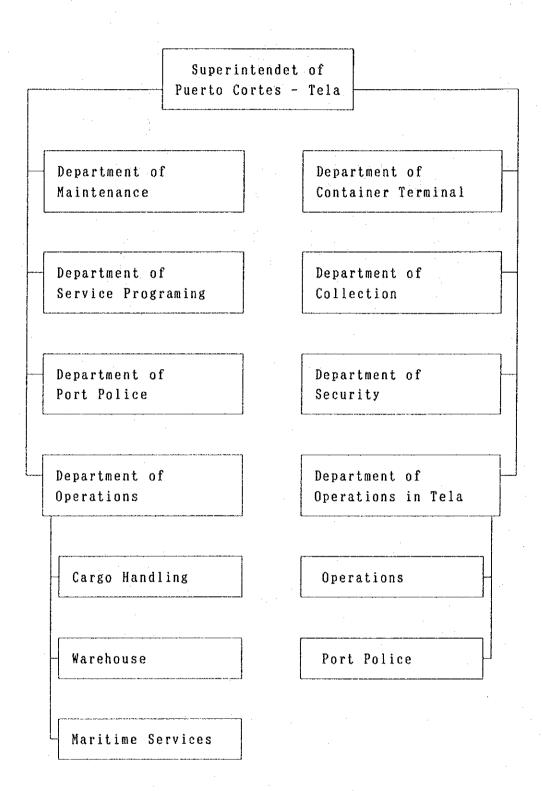


Fig. 2-4-2 Organization of Superintendent of Puerto Cortes - Tela

	1984	1985	1986	1987	1988	1989	1990	1991	1992 :	1993
. Central Office										
Nanagement	59	62	84	72	47	46	55	48	49	49
Internal Auditor	17	16	19	20	19	19	19	22	22	22
Planning Division	22	20	24	27	25	22	20	33	33	33
General Services Division	84	84	86	48	77	79	39	36	38	38
Human Resources Division	32	33	35	36	38	43	70	91	91	90
Accounting Division	23	23	23	40	47	36	50	38 :	38 -	38
Technical Division	131	148	136	100	115	123	119	118	120 -	122
Sub-total	368	386	407	343	368	368	372	386	391	392
. Superintendent				:		:				
Puerto Cortes	302	329	303	414	493	461	460	458	461 :	462
Tela	9	9	8	7	12	12	11	12	12	12
La Ceiba	36	36	34	36	39	37	40	37	37	25
Puerto Castilla	69	61	60	69	73	77]	76	77	77 -	77
San Lorenzo	103	104	100	104	122	119	101	98	98	85
Free Zone	24	23	25	37	36	39	44	44 :	44	44
Sub-total	543	562	530	667	775	745	732	726	729	
Total	911	948	937	1,010	1,143	1,113	1,104	1,112	1,120	1,097

Table 2-4-1 Personnel of ENP

Source : PRESUPUESTO DE SUELDOS

.

Table 2-4-2 Accidents in ENP

· · · · · · · · · · · · · · · · · · ·	1988	1989	1990	1991	1992	Total
Puerto Cortes	27	42	55	52	45	221
	47,600	47,864	105,101	60,878	39,654	301,097
La Ceiba		2				2
		2,460				2,460
Puerto Castilla	3	10	7	4	5	29
	654	6,126	3,278	2,906	12,419	25,383
San Lorenzo	6	11	4	4	4	29
	18,213	8,348	870	1,782	2,476	31,689
Free Zone		1	1	1		3
		213	1,408	258		1,879
Total	36	66	67	61	54	284
	66,467	65,011	110,657	65,824	54,549	362,508

Source : ENP

Upper:Number of Accidents, Lower:Expenditure of Insurance

Table 2-4-3	Income	Statement	of	ENP	
-------------	--------	-----------	----	-----	--

			· · · · ·		(Unit : T	housand Le	mpiras)
	1986	1987	1988	1989	1990	, 1991	1992
Operating Income						1	
Ship Service	19,467	21,110	22,021	22,493	24,973	27,500	29,303
Cargo Handling Service	30,957	33,540	33,604	35,125	35,012	37,350	43,550
Equipment Lease	1,525	1,792	2,019	1,731	1,879	1,963	1,462
Free Zone Service	1,676	1,813	1,932	2,058	2,963	4,386	7,134
Sub-Total	53,625	58,255	59,576	61,407	64,827	71,199	81,449
Operation Expense							
Personnel	22,760	25,191	25,755	26,820	29,722	36,416	41,293
Maintenance	6,111	5,253	4,646	5,733	6,966	8,885	12,660
Administration	1,317	1,257	1,159	1,223	1,897	2,685	2,911
Depreciation	9,455	9,900	9,959	9,177	9,030	9,551	10,405
Sub-Total	39,643	41,602	41,518	42,953	47,614	57,537	67,269
Net Operating Income	13,982	16,653	18,058	18,454	17,212	13,662	14,180
Non-Operation Income	1,395	2,957	12,543	13,275	10,432	46,537	53,369
Non-Operating Expense	29,909	28,262	17,090	20,802	15,781	31,647	41,557
Net Income Before Tax	-14,532	-8,652	13,511	10,926	11,863	28,553	25,991
		1					· · · · · · · · · · · · · · · · · · ·
Working Ratio (%)	56.29	54.42	52.97	55.00	59.52	67.40	69.82
Operating Ratio (%)	73.93	71.41	69.69	69.95	73.45	80.81	82.59

Source : ESTADOS FINANCIEROS & INFORMACION ADICIONAL

					(Unit : Th	ousand Le	mpieras)
	1986	1987	1988	1989	1990	1991	1992
Operating Costs	9,835	9,833	9,195	9,769	11,186	13,473	17,878
Personnel Expense	5,630	6,176	6,287	6,153	6,893	8,136	9,441
Other Expense	4,205	3,657	2,909	3,617	4,293	5,337	8,437
Percentage of P/Ope.	57.24%	62.81%	68.37%	62.98%	61.62%	60.39%	52.81%
Administrative Costs	20,353	21,869	22,364	24,007	27,398	34,513	38,985
Personnel Expense	17,131	19,015	19,468	20,667	22,829	28,280	31,851
Other Expense	3,222	2,854	2,896	3,339	4,569	6,233	7,134
Percentage of P/Admi.	84.17%	86.95%	87.05%	86.09%	83.32%	81.94%	81.70%
Total Expense	30,188	31,702	31,560	33,776	38,585	47,986	56,864
Personnel Expense	22,760	25,191	25,755	26,820	29,722	36,416	41,293
Other Expense	7,427	6,510	5,805	6,956	8,863	11,570	15,571
Percentage of P/T	75.40%	79.46%	81.61%	79.41%	77.03%	75.89%	72.62%

Table 2-4-4 Operating Expense and Administrative Expense

Source : ESTADOS FINANCIEROS E INFORMACION ADICIONAL (ENP)

Note : Expenses Exclude Depreciation

P/Ope. = Personnel Expense/Operating Expense

P/Admi. = Personnel Expense/Administrative Expense

P/T = Personnel Expense/Total Expense

		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				
	19	88	19	89	19	90
	Budget	Accounts	Budget	Accounts	Budget	Accounts
Income	61,500	72,119	65,606	74,682	67,200	75,259
Expense	59,641	58,608	57,517	63,755	59,906	63,395
Profits	1,859	13,511	8,090	10,927	7,295	11,864
	19	91	199	92	199	93
	Budget	Accounts	Budget	Accounts	Budget	Accounts
Income	95,536	117,736	113,718	134,818	140,699	-
Expense	73,857	89,184	92,973	108,826	107,208	•
Profits	21,679	28,552	20,745	25,992	33,491	0

Table 2-4-5 Budget and Accounts of ENP

Source : ENP

Table 2-4-6 Port Tariff

Items	Unit Charge	Remarks
1. Ship Service		
(1)Harbour Dues		
1)Conventional Ships	0.75 US\$/GRT	Up to 3,000 GRT
	0.65 US\$/GRT	From 3,001 to 8,000 GRT
	0.55 US\$/GRT	From 8,001 to 15,000 GRT
	0.45 US\$/GRT	More than 15,001 GRT
2)Ro/Ro Ships	0.50 US\$/GRT	Up to 3,000 GRT
	0.30 US\$/GRT	From 3,001 to 8,000 GRT
	0.20 US\$/GRT	From 8,001 to 15,000 GRT
	0.10 US\$/GRT	More than 15,001 GRT
3)Solid Bulk Ships	1.875_US\$/GRT	Up to 3,000 GRT
•	1.75 US\$/GRT	From 3,001 to 8,000 GRT
	1.50 US\$/GRT	From 8,001 to 15,000 GRT
	1.25 US\$/GRT	More than 15,001 GRT
4)Tanker	2.00 US\$/GRT	Up to 3,000 GRT
·	1.75 US\$/GRT	From 3.001 to 8.000 GRT
•	1.50 US\$/GRT	From 8,001 to 15,000 GRT
	1.25 US\$/GRT	More than 15,001 GRT
5)Timber Ships	1.25 US\$/GRT	Up to 3,000 GRT
	1.125 US\$/GRT	From 3,001 to 8,000 GRT
	0.875 US\$/GRT	From 8,001 to 15,000 GRT
	0.75 US\$/GRT	More than 15,001 GRT
6)Bananas and	0.75 US\$/GRT	Up to 3,000 GRT
Other Fruits Ships	0.625 US\$/GRT	From 3,001 to 8,000 GRT
	0.40 US\$/GRT	From 8,001 to 15,000 GRT
	0.30 US\$/GRT	More than 15,001 GRT
7)Lo/Lo Ships	0.75 US\$/GRT	Up to 3,000 GRT
	0.625 US\$/GRT	From 3,001 to 8,000 GRT
	0.45 US\$/GRT	From 8,001 to 15,000 GRT
	0.15 US\$/GRT	More than 15,001 GRT
(2)Pilotage		
	112.50 US\$	From 301 to 1,500 GRT
	150.00 US\$	From 1,501 to 3,000 GRT
	187.50 US\$	From 3,001 to 4,500 GRT
	225.00 US\$	From 4,501 to 6,000 GRT
	262.50 US\$	From 6,001 to 8,000 GRT
	300.00 US\$	From 8,001 to 10,000 GRT
	350.00 US\$	From 10,001 to 15,000 GRT
	425.00 US\$	From 15,001 to 20,000 GRT
(a) m	500.00 US\$	More than 20,001 GRT
(3)Towage		
	112.50 US\$	From 301 to 1,500 GRT
	162.50 US\$	From 1,501 to 3,000 GRT
	237.50 US\$	From 3.001 to 4.500 GRT
	287.50 US\$	From 4,501 to 6,000 GRT
	337.50 US\$	From 6,001 to 8,000 GRT
	375.00 US\$	From 8,001 to 10,000 GRT
	412.50 US\$	From 10,001 to 15,000 GRT
· · · · · · · · · · · · · · · · · · ·	475.00 US\$	From 15,001 to 20,000 GRT
	537.50 US\$	More than 20,001 GRT

(4)Anchorage		
(4) ANCHOLAGE	7.50 US\$	Up to 200 GRT
	15.00 US\$	From 201 to 1,500 GRT
	30.00 US\$	From 1, 501 to 3, 000 GRT
	45.00 US\$	From 3,001 to 4,500 GRT
	40.00 US\$	From 4,501 to 6,000 GRT
	75.00 US\$	From 6,001 to 8,000 GRT
	90.00 US\$	
		From 8.001 to 10.000 GRT From 10.001 to 15.000 GRT
	110.00 US\$	From 15,001 to 20,000 GRT
	125.00 US\$	
	150.00 US\$	More than 20,001 GRT
(5)Tying and Untying Rope	<u> </u>	
	50.00 US\$	Normal labour hours
· · · · · · · · · · · · · · · · · · ·	100.00 US\$	No normal labour hours or overtime
(6)Berthage		
	1.50 US\$/ft/hour	First 10 hours (Minimum)
· · · · · · · · · · · · · · · · · · ·	0.25 US\$/ft/hour	After minimum time
(7)Wharfage		
1)Import	8.00 Lps./MT	Grain(bulk), Cement
	7.00 Lps./MT	Grain(bag)
2)Export	1.00 Lps./MT	Fruits,Vegitable
	3.00 Lps./MT	Sugar, Tabaco, Timber
	5.00 Lps./MT	Coffee, Meat
2. Cargo Handling		
(1)Loading/Unloading	0.75 US\$/MT	
(2)Container		
1)Lo/Lo Ships		
Unloading, Loading	100.0 US\$	Full System (*1)
	90.0 US\$	To Railway (*2)
	71.5 US\$	To Chassis (*3)
	62.5 US\$	Empty Container
2)Ro/Ro Ships		
Unloading	56.5 US\$	Full Container
	32.5 US\$	Empty Container
Loading	56.5 US\$	
(3)Banana	22.5 US\$	By user's equipment
(4)Transit		······································
1)Lo/Lo Ships	55.0 US\$	Full Container
1,00,00 outpo	50.0 US\$	Empty Container
2)Ro/Ro Ships	50.0 US\$	Full Container
2/ NO/ NO OHIPS	45.0 US\$	Empty Container
3.Others	<u>~10.0 000</u>	Dup of Conversion
(1)Water Supply	5.0 US\$	250 gallons
(2)Wharf Cleaning	50.0 US\$	Timber Ships
(6) mart vieaning	100.0 US\$	Solid Bulk Ships
(3)Electrical Energy(light)	12.5 US\$/hour	From 6:00 PM to 6:00 AM

Source : ENP

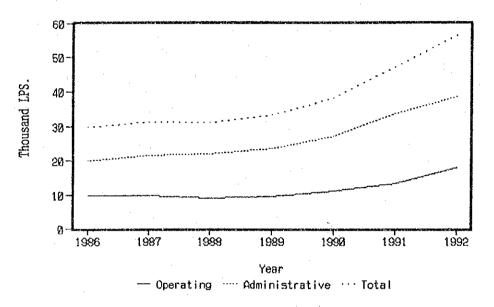
(*1) With Gantry Crane, Straddle Carrier and Tractor Head (*2) With Gantry Crane and Straddle Carrier

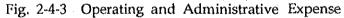
(*3) With Gantry Crane

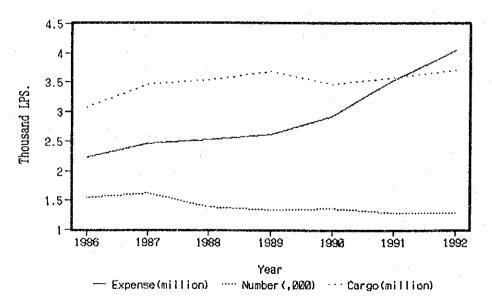
	the second se
Operating Hours	Closing Days
24 hours	May 1
24 hours	365 days available
24 hours	May 1
8 hours	May 1
8 hours	May 1
	24 hours 24 hours 24 hours 24 hours 24 hours 24 hours 24 hours 8 hours

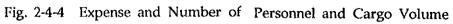
Table 2-4-7 Port Operating Hours by Each Function

Source : ENP









			1.1	•	
Handling Equipment	Cortes	Castilla	La Ceiba	San Lorenzo	Total
Mobil Crane		2	0	3	13
125ton	1				1
80ton					0
50ton	1				1
40ton	1				1
35ton		1			1
30ton				2	2
25ton	1				1
22ton	1				1
20ton		1			- 1
15ton	2				2
5ton				1	1
					0
Gantry Crane 45ton	· 1				1
Forklift	53		1		65
1.5ton	17	1	1		19
2.0ton	1				1
3.0ton	8	1		4	13
4.0ton	19	2		2	23
7.5ton	8			1	9
Straddle Carrier	3				3
45ton	2				2
30ton	11				1
Top-lifter			0	1	2
45ton	1				1
40ton					0
30ton				1	1
Prime Mover	27				30
30ton	27	1		2	30
Chassis	3.5			5	46
40ton	35	6		5	46
Scale	3				3
60ton	3				3
Wheel Loader	·				3
4ton				2	2
		1			1
Total	130	14	1	20	165
Source: ENP					

Table 2-5-1 Cargo Handling Equipment by Port (1993)

Source:ENP

type	Capacity	Quantity	Year		Condit	ion	Remak
	Ton		Built	Good	<u>Satis.</u>	Poor	
Toplifter	4.5	1	1992	1			St. Carr.:
St.Carr.	45	2	1984	1		1	Straddle
St.Carr.	3.0	1	1978		1		Carrier
Sub Total		4		2	1	1	
Prime Mover	30	7	1992	7	· · · · ·		
Prime Mover		2	1990	2			
Prime Mover		4	1984	4			
Prime Mover	30	5	1980	2	1	2	
Prime Mover		6	1978	3	3		
Prime Mover	30		1978	2	1		
Sub Total		27		20	5	2	
Chassis	40	35			35		76,78 & 83
							install
Total		66		22	41	3	the port

Table 2-5-2Condition of Container Handling Equipment
at the Port of Cortes

TypeLocationCpacityYear
RangeRange
GoodConditionPaceco#5Berth45197835xGantry Crane(for container)TotalImage: ConditionImage: Condition

Standard of Classification

Good :Working Satis. :Cost is Low Poor :Almost beyond repair

Source: ENP

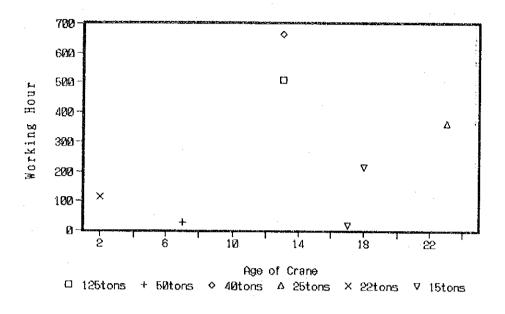


Fig. 2-5-1 Relation between Age of Crane and Working Hour

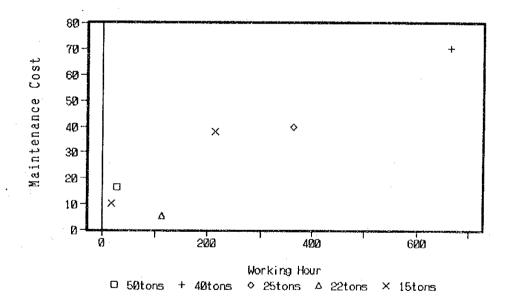


Fig. 2-5-2 Relation of Crane Working Hour and Direct Maintenance Cost

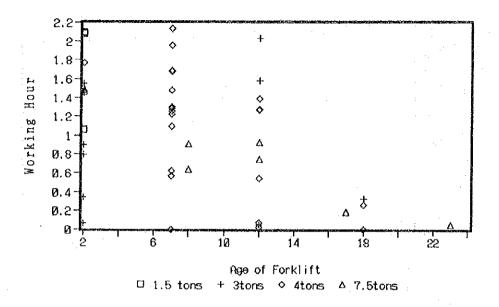


Fig. 2-5-3 Relation between Age of Folklifts and Working Hour

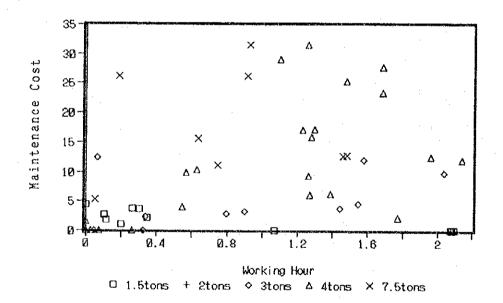


Fig. 2-5-4 Relation of Folklifts Working Hour and Direct Maintenance Cost

Table 2-5-3Condition of Cargo Handling Equipment
at the Port of Castilla

the supervision of the second s	<u>banu nyu</u>		THE OWNER WATER OF TAXABLE PARTY.	PROPERTY OF THE OWNER.	And a state of the	A second second	Contraction of the local division of the loc
type	Capacity				<u>Condit</u>		Remak
	Ton		Built	Good	Satis.	Poor	
Prime Mover		1	1980		1		
Chasis		4	1985	4			Otawa
Chasis		1	1983	1			
Chasis		1	1975			1	
Total		7		5	1	1	

Land Equipment for Container Transportation

Nobil Crane

trade-Mark	Capacity	Quantity	Year		Condit		Remak
	Ton		Built	Good	Satis.	Poor	· · ·
Bucyrus	20	1	1985		1		
Bucyrus	35	1	1985		1		
				·····			
					-		
Total	1	2			2		

Fork Lift Trucks

trade-Mark	Capacity	Quantity	Year		Condit	ion	Remak
	Ton		Built	Good	Satis.	Poor	
Pettibone	1.5	1	1969			1	
Clark	3.5	1	1980	1			
Yale	4.0	2	1985	2			
Total		4		3		1	

Wheel Loader

trade-Mark	Capacity	Quantity	Year		Condition	Remak
	Ton		Built	Good	Satis.Poor	
Caterpillar		1	1985	1		
and the second sec						
Total		1		1	· · .	

Standard of Classification

Good :Working Satis.:Cost is Low Poor :Almost beyond repair

Source:ENP

	Land Equ	ipment f	or Con	tainer	Trans	porta	tion
type	Capacity	Quantity	Year		<u>Condit</u>		Remak
	Ton		<u>Built</u>	Good	<u>Satis</u> .	Poor	
Prime Mover	30	11	1978		1		OTTAWA
Prime Mover	30		1978		1		OTTAWA
Sub Total		2		IL MERLEY, W.F. 6 WW.	2		
Chassis	30	11	1978	1		_ <u>_</u>	
Chassis	30	1	1978	1			
Chassis	30	1	1978	1	L		
Chassis	30	1	1978	1			
Chassis	30	1	1978	1			
Sub Total		5		5			
Top-lifter	40	· <u>1</u> .	1984	1			HYSTER
	.						
			·				· · · · · · · · · · · · · · · · · · ·
Total		8		6			

Table 2-5-4Condition of Cargo Handling Equipmentat the Port of San Lorenzo

trade-Mark	<u>Mobil Cr</u>	$\frac{d}{d}$	Voon	[Condit	i on T	Remak
trade-магк	Ton		lear Built		Satis.		пенак
Pettibone	5	1	1975			1	
Pettibone	30	1	1978			1	
Bucyrus	30	1	1973	11			
		·					
Total		3		1		2	

Fork Lift Trucks

trade-Mark	Capacity	Quantity	Year		Condit		Remak
	Ton		Built	Good	<u>Satis.</u>	Poor	
Komatu	3	4	1978		3	1	
Hyster	4	2	1985	2			
Komatu	7.5	1	1978	1			
Total		7		3	3	1	

Wheel Loader

	trade-Mark	Capacity	Quantity	Year		Condit	ion	Remak
		Ton		Built	Good	<u>Satis.</u>	Poor	
	Caterpillar	4	1	1982	1			
	Caterpillar	4	1	1990	1			
1								
	Total		2	3972	2			1

Standard of Classification

Good :Working Satis.:Cost is Low Poor :Almost beyond repair

Source: ENP

Ocupation	San Lorezo	Cort	tes	Castilla	Total
		TCC	DME		
Slectrician II	1				
Electrician I	1			1	2
)itto Helper					0
le.Electrican		1		1	2
)itto Helper				1	1
lechanic III			2		2
lechanic II	1	2	4		7
lechanic I	1	3	3	1	
n.Mechanic III			1		1
n.Mechanic II	·				0
n.Mechanic I			1		1
lechanic Helper	1	6	17	2	26
elder	1		3		4
lelder Helper			2		2
ubricator	·	1		· ·	1
ubricator Helper		1	· · · · · · · · · · · · · · · · · · ·		1
aily Worker	· · · · · · · · · · · · · · · · · · ·		3		3
Total	6	14	36	6	62

Table 2-5-5 Maintenance Workers for cargo Handling Equipment

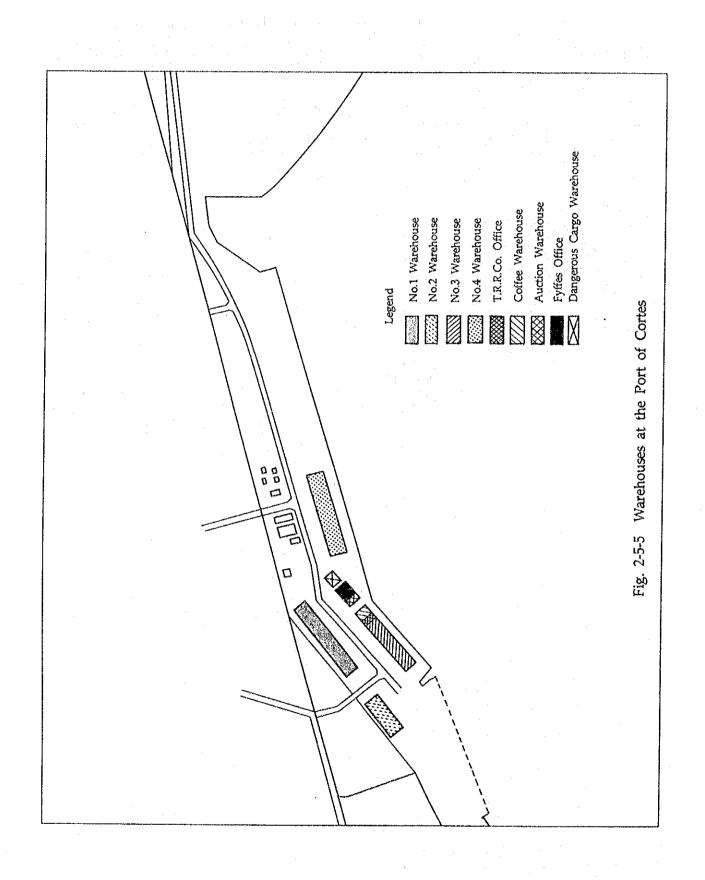
Me.:Mechanic In.:Industrial TCC:Terminal de Contenedores DME:Departamento de Mantenimiento de Equipo

Table 2-5-6	Warehouse by Port at ENP

Warehouse by port	Floor Area	Capacity	Average	Stacking
· · · · · · · · · · · · · · · · · · ·	(sq m)	(cu.m)	Hight(m)	Hight(m)
San Lorenzo	5,418.36	0		
Lumber Shed	1,204.08		-	
General Cargo Shed	2,408.16	· -	-	
Cotton Shed	1,806.12		 -	
		: .		
Cortes	17,369.81	104,639		
#1 Warehouse	4,811.57	35,124	7.30	
#2 Warehouse	2,224.47	14,904	6.70	
#3 Warehouse	3,201.27	11,525	3.60	
T.R.R. Co. Office	422.79	2,114	5.00	
Coffee Warehouse	422.79	2,114	5.00	
Auction Warehouse	485.16	1,698	3.50	
Fyffes Office	376.93	1,319	3.50	
Dangerous Cargo WH.	436.60	1,921	4.40	
#4 Ware House	4,988.23	33,920	6.80	
		·		
La Seiba	270.26	1,811		
Ware House	270.26	1,811	6.70	
· · · · · · · · · · · · · · · · · · ·				
Castilla	5,955.84	38,117		
5A Lumber Storage	2,977.92	19,059	6.40	
5B Lumber Storage	2,977.92	19,059	6.40	

WH:Warehouse

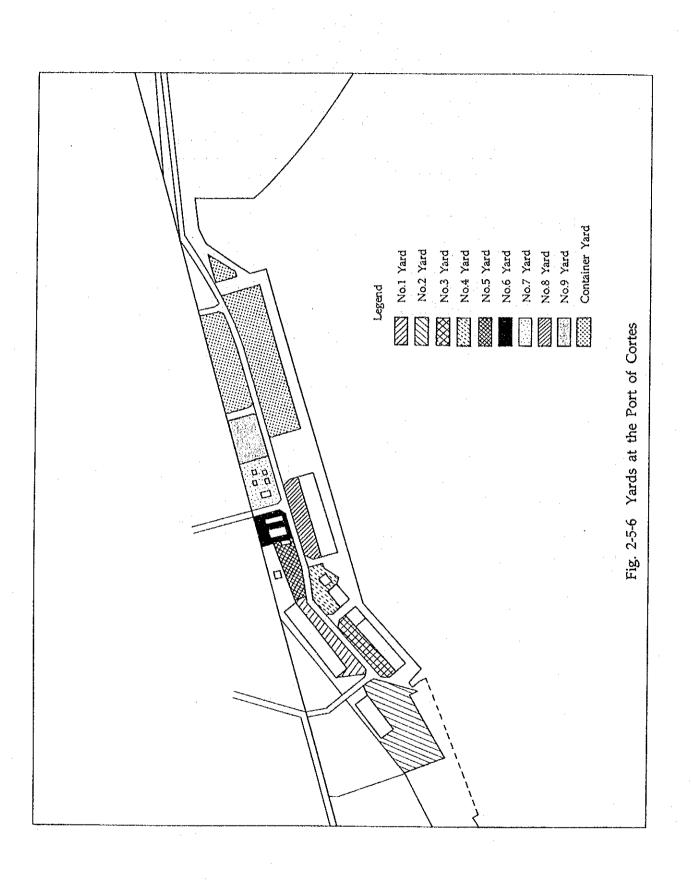
Source:ENP



Open Storage Area	Area	Capacity
and Tank	<u>(m)</u>	(cu.m)
San Lorenzo		
Lumber Yard	27,246.00	
General Cargo Yard	7,378.00	
Tank for Molasses		3,785.30
Cortes		
#1 Yard	10,511.29	
#2 Yard	6,020.37	
#3 Yard	3,524.10	
#4 Yard	5,240.66	· ·
#5 Yard	5,299.30	
#6 Yard	3,400.74	
#7 Yard	5,193.85	
#8 Yard	4,586.40	
#9 Yard	4,157.77	1
Container Yard	24,471.29	
#10 Yard	14,000.00	
#10 1/2 Yard	2,500.00	
#11 Yard	44,000.00	
Castilla		
Open Storage	3,000.00	
Parm Oil Tank 1		3,178.68
Parm Oil Tank 2		3,178.68
Asphalt Tank 1		3,178.68
Asphalt Tank 2		3,178.68
Deisel Tank 1		794.67
Deisel Tank 2		794.67
Gasoline 1		1,907.21
Gasoline 2		1,907.21
Source: ENP		····•

Table 2-5-7 Open Storage Area and Tanks

Source: ENP



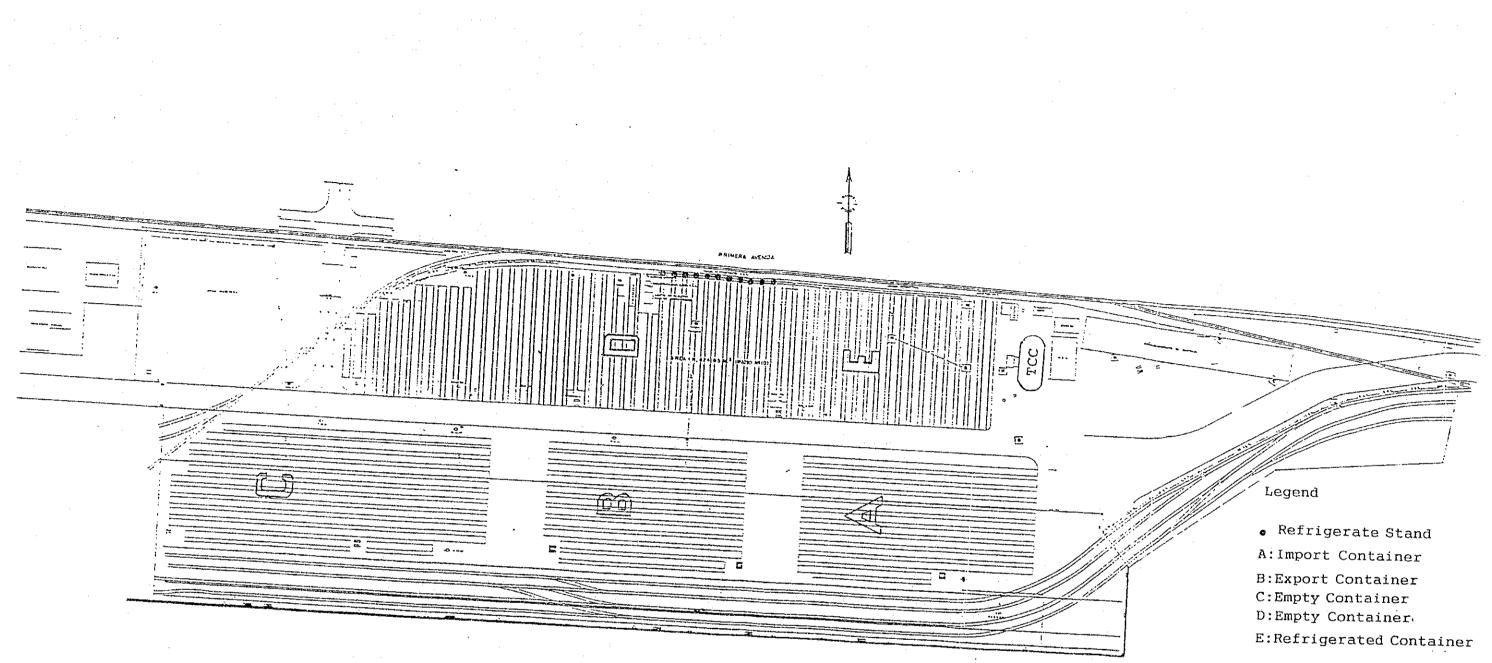


Fig. 2-5-7 Plan of Container Yard

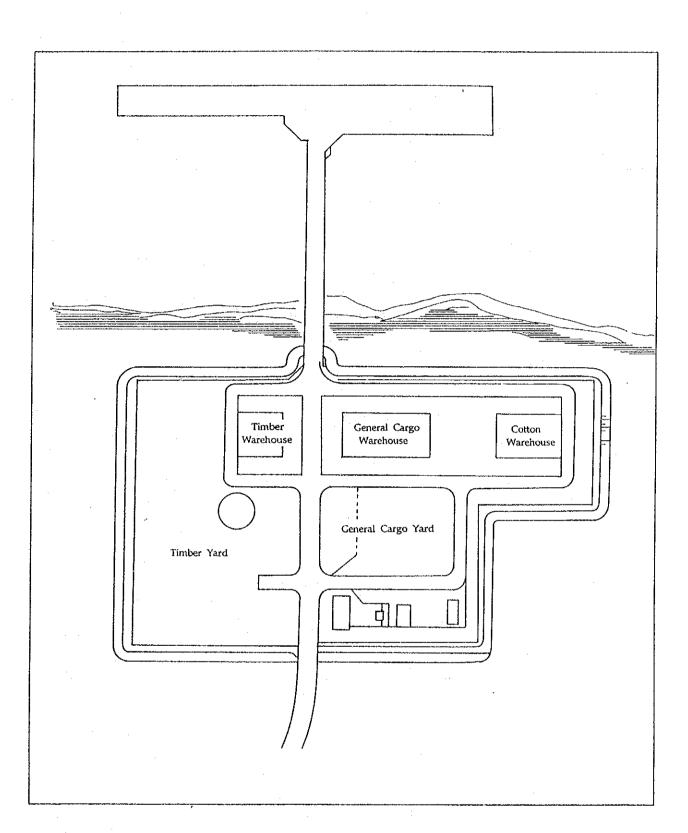


Fig. 2-5-8 Warehouses and Yards at the Port of San Lorenzo

Operator	San Lorenzo	Cortes	La Ceiba	Castilla	Total
Crane	2	8		1	11
Folklift	3	9	1	2	15
Gantry Crane		2			2
Straddle carrier		4			4
Trukter		11		1	12
Total	5	34	1	4	44

Table 2-5-8 Number of Operator in ENP (1993)

Source: ENP

Table 2-5-9 Average Turn Around Time for Each Vessel Type in the Port of Crtes

					and the second
Type of Vessel	Number	In Port	At Berth	Ratio(%)	Waiting(h)
Banana LO-LO	161	16.7	12.3	73.7	4.4
Container	338	17.5	13	74.3	4.5
RO-RO	231	14.3	10.9	76.2	3.4
Sub Total	730	16.3	12.2	74.8	4.1
Banana Reefer	145	80.5	58.4	72.5	22.1
Conventional	119	57.8	25.9	44.8	31.9
Sub Total	264	70.3	43.8	62.3	26.5
Dry Bulk	40	166.3	132.3	79.6	34.0
Petroleum	60	33	30.5	92.4	2.5
Dtjer Liquid	24	29.2	22.3	76.4	6.9
Source RNP					

Source ENP

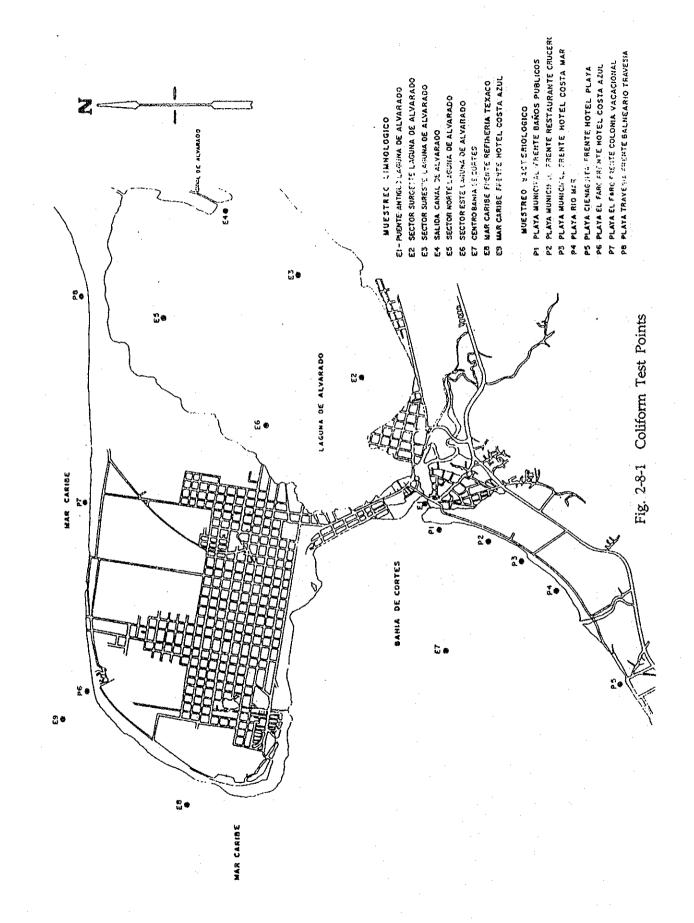
note:Ratio means the rate of 'At Berth' time to 'In Port' time Waiting means the difference of 'In Port' time and 'At Berth' time

Table 2-5-10 Average Cargo Handling Volume for Each Vessel Type

Type of Vessel	Number	Import	Export	Total	Efficiency
Banana LO-LO	161	824	1824	2648	215
Container	338	654	779	1433	110
RO-RO	231	693	925	1618	148
Total/Average	730	704	1056	1760	144
Banana Reefer	145	7	2143	2150	37
Conventional	119	740	157	897	35
[otal/Average	264	337	1248	1585	36
Dry Bulk	40	4187	2674	6861.0	52
Petroleum	60	9906	0	9906.0	325
Other Liquid	24	553	781	1334.0	60

Table 2-5-11 Productivity of Container Handling at the Port of Cortes

22.7 Dpen Harch Cover Wait Trailer 35.1 Wait Trailer ETENTION AUSE OF TOTALGROSS GROSS DETEN- NET UNIT WORK PRODU-FION PRODU-C HOUR CTION TIME CTION D (BOX)(HOUR)B/Hrs (Min.)B/Hrs 31.9 14.0 20.0 19.7 16'00 18.0 13'05 23.6 20' ò ò 14.0 20.0 1:59 20 1:00 9 0:30 00: 1:01 39 39 20 742 4 Source : Study Team Observation 20 S 3 40′ DISCHARGLOADED 20'40'20'40' GEAR ----SHIP 20'40'20'40' 14 DISCHARGLOADED CRANE 9 9 9 GANRTY 4 11:11-11:45 3 15:34-16:36 DBSEVATION 9:15-10:15 9:26-11:25 4 5:30-7:30 TIME FOR F:Full Container Vessel M:Multi Purpose Vessel C:Conventional Vessel é é ഹ ŝ MAR 3 ALEXEA C MAR 9 LA MINERA F MAR10 COURTNEY-L F MAR10 COURTNEY-L F MAR11 TROPICAL F MAR11 TROPICAL F 4 VESSEL Note: DATE



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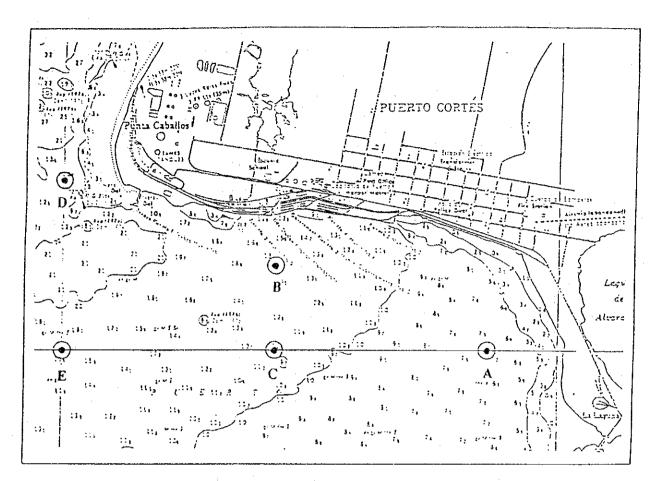


Fig. 2-8-2 Water Sampling Points

