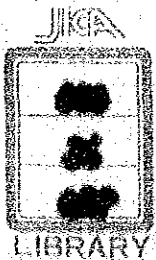


無償資金協力案件の事業費積算に  
関する基礎調査(フェーズII)報告書  
(別冊 フィリピン編)

昭和63年3月

国際協力事業団



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## フィリピン資料

無償施設案件におけるより適正な事業費積算を図る上で、当該国におけるコストデータ、つまり現地における正確なコスト情報の蓄積・整備が今後の重要な鍵となる。

下記に、フィリピン国における現地調査で得た資料を基に、当該国ジェネラル・コストデータベースの形に要約した。

今後、他の国においても同様なコストデータベースを整備し、常時最新情報が蓄積されるようメンテナンス処理を施すことの意義は極めて大きいと考えられる。

### 1. ジェネラル・コストデータベース項目の内容

現地調査にて入手した資料を、次ページ（表-1）に挙げる主要項目に従って分類し、フィリピンにおけるジェネラル・コストデータベースの概要として次ページ以降にまとめた。

表-1 ジェネラル・コストデータベース項目

A.	現地国一般建設コストデータ	
A. A	概 要	当該国の建設コストにおける特徴、傾向、特性等現行データを常にメンテナンスした最新データ (インフレ率、為替レート等)
A. B	指 数	当該国の建築コストインデックス、建築コスト指数、値動きの状況
A. C	労 務	建設産業における、建設工事労務費、労務時間、労務契約状況、労務に関する保険、税金、歩掛データ
A. D	資材及び建設機械	主要資材価格及び建設産業に使用されるプラント機械の値段の動き、材料の歩掛りデータ
A. E	工 法	当該国の建設工法の特徴及び作業方法
A. F	法 律	建設産業に影響を及ぼす、法律、法令の概要
A. G	統計及び経済指数	当該国の建設産業に係わる、投資額、就業率、経済状況等の統計、経済指標データ
A. H - A. K (空欄)		
A. L	地 域 差	当該国内での地域差によるコスト指数の違いと傾向性
A. M	予定価格	予定価格及び予算算出指標計画一覧表
A. N	コンサルタントへの報酬額と業務内容	コンサルタント業務報酬額に関する資料及び業務範囲
B.	現地建設事情についての刊行物の概要	建築のコスト面に関連する出版刊行物の概要
C - E (空欄)		
F.	実績コスト調査	実績プロジェクト概要コストを分析し、企画時における予算算出、概略予算に利用できるようにまとめたもの。
G.	詳細コスト分析	実績詳細コストデータであり、予算価格の作成、もしくは、審査における有効なデータ情報システム
H.	現行ローカル市場価格及び複合単価	現行の流通している材料費、労務費そして建設工事複合単価積み上げの根拠データ
K - Y (空欄)		
Z.	参照用索引	このデータベース内での検索用として整理した参照用、索引累積一覧表

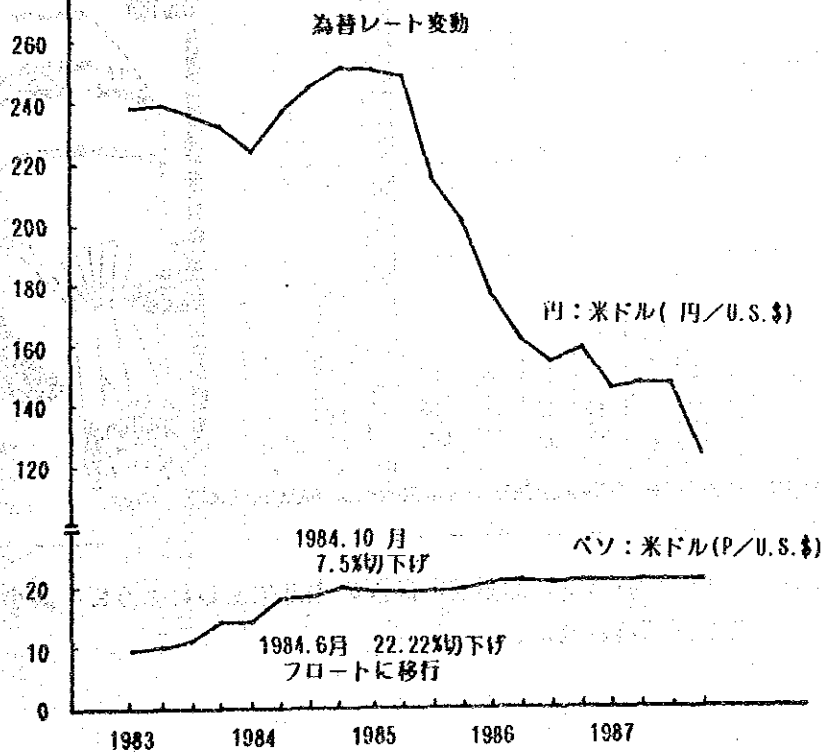


## 2. 現地国一般建設コストデータ (A)

### 2-1 概要 (A・A)

(1) 為替交換率 (ペソ対米ドル) の変動

	P/U・S・\$	円/U・S・\$
1983. 3	9.587	239.3
6	10.179	239.8
9	11.002	236.1
12	14.002	232.0
1984. 3	14.002	224.75
6	18.002	237.45
9	18.002	245.4
12	19.878	251.58
1985. 3	18.467	250.7
6	18.465	248.95
9	18.64	216.0
12	19.032	200.6
1986. 3	20.6	177.6
6	20.58	162.95
9	20.448	154.25
12	20.53	158.05
1987. 3	20.55	145.65
6	20.456	146.75
9	20.6	146.35
12	20.8	122.0



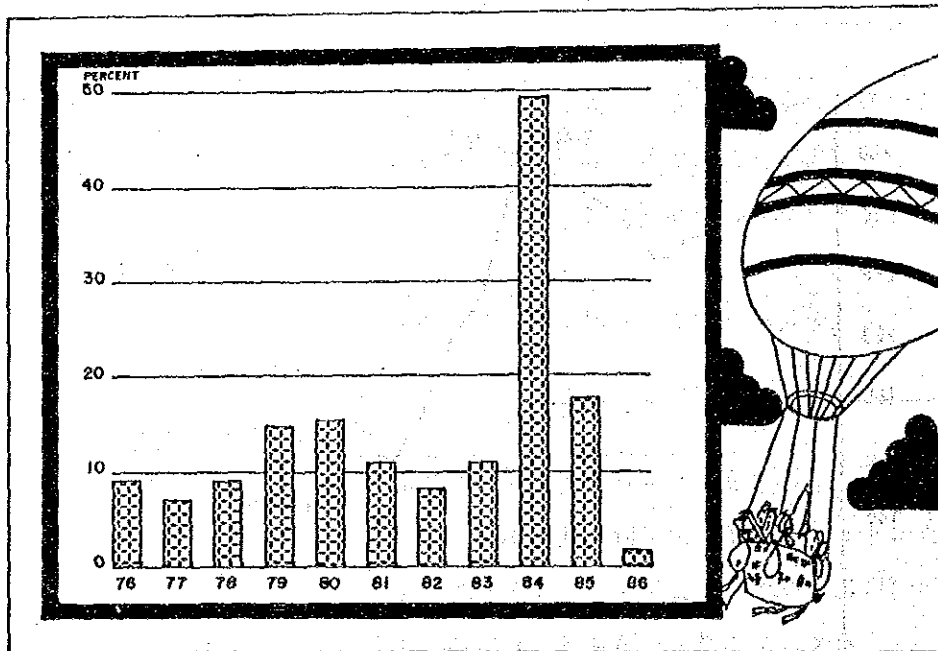
## (2) インフレ率

Table 2-04  
INFLATION RATE BASED ON GNP IMPLICIT PRICE INDEX, 1976-1986  
(1972 = 100.0)

Year	GNP Implicit Price Index	Inflation Rate (Percent)
1976	183.0	9.4
1977	196.5	7.4
1978	214.6	9.2
1979	247.3	15.2
1980	285.2	15.5
1981	317.2	11.0
1982	343.9	8.4
1983	384.0	11.6
1984	575.4	49.8
1985	677.4	17.7
1986	689.5	1.8

Source of basic data: NEDA, National Accounts Staff.

Chart 2-04  
INFLATION RATE BASED ON GNP IMPLICIT PRICE INDEX  
(1972 = 100.0)



計画概要： インフレ率は、通貨安定計画の中で想定したように、最小限にとどめることが期待された。

傾向： GNPに基づいているインフレ率（価格指数）は、17.5%（1985年）から1.5%（1986年）に下がっている。これは、一連の石油価格削減、為替レート（ペソ対米ドル）の安定、食料製品価格の安定政策などによるものです。

(3) 産業タイプ別総合生産高及び成長率

Table 1-04  
GROSS VALUE ADDED IN INDUSTRY, 1976-1986  
(in Million Pesos at Constant 1972 Prices)

Year	Total Industry		Mining and Quarrying		Manufacturing		Construction		Electricity, Gas and Water	
	Level	Growth Rate (%)	Level	Growth Rate (%)	Level	Growth Rate (%)	Level	Growth Rate (%)	Level	Growth Rate (%)
1976	25743	10.38	1491	3.18	18299	5.70	5275	33.27	678	11.70
1977	27907	8.41	1742	16.83	19672	7.50	5782	9.61	711	4.87
1978	29611	6.11	1809	3.85	21108	7.30	5944	2.80	750	5.49
1979	31976	7.99	2134	17.97	22239	5.36	6759	13.71	843	12.40
1980	33471	4.68	2236	4.78	23175	4.21	7139	5.62	921	9.25
1981	34963	4.46	2175	(2.73)	23959	3.38	7830	9.68	999	8.47
1982	35714	2.15	2016	(7.31)	24535	2.40	8079	3.18	1084	8.51
1983	35954	0.67	1966	(2.48)	25108	2.34	7689	(4.83)	1191	9.87
1984	32282	(10.22)	1755	(10.73)	23319	(7.13)	5866	(23.71)	1342	12.68
1985	29000	(10.17)	1768	0.74	21541	(7.62)	4258	(27.41)	1433	6.78
1986	28204	(2.74)	1558	(11.88)	21717	0.82	3382	(20.57)	1547	7.96

( ) negative value

Source of data: NEDA, National Accounts Staff

## 2-2 指数 (A · B)

### (1) 建設物価指数

Table 3.22 - GROSS VALUE OF CONSTRUCTION AND GROSS VALUE ADDED BY TYPE OF CONSTRUCTION: 1972 TO 1986<sup>1</sup>  
(in million pesos at current prices)

Type of construction	1972	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 <sup>1</sup>
GROSS VALUE	3,555	11,714	16,463	19,643	22,363	32,201	37,368	46,097	51,392	54,361	63,907	56,228	46,193
1. Government	1,034	4,368	6,428	8,125	10,260	16,103	16,326	20,017	21,993	19,751	20,107	18,696	13,148
2. Private	2,531	7,346	10,035	11,518	12,103	16,096	21,042	25,990	29,399	34,610	43,800	37,532	28,051
a. Residential	1,569	4,033	5,327	6,307	6,748	8,854	11,389	14,783	18,164	-	-	-	-
b. Non-residential	962	3,313	4,708	5,211	5,355	7,242	9,653	11,207	11,225	-	-	-	-
GROSS VALUE ADDED	2,240	7,060	9,784	11,356	12,523	17,769	21,311	26,268	29,302	30,730	31,209	27,506	22,683
1. Government	646	2,525	3,715	4,697	5,682	8,887	9,311	11,446	12,542	11,260	9,840	9,922	9,500
2. Private	1,594	4,535	6,069	6,659	6,841	8,882	12,000	14,822	16,760	19,470	21,369	17,584	13,183

<sup>1</sup>Preliminary estimates as of May 1987.  
Source: National Accounts Staff, Statistical Coordination Office,  
National Economic and Development Authority.

Table 3.24 - IMPLICIT PRICE INDEX NUMBERS OF GROSS VALUE OF CONSTRUCTION AND GROSS VALUE ADDED BY TYPE OF CONSTRUCTION: 1972 TO 1986  
(Base year: 1972 = 100)

Type of construction	1972	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 <sup>1</sup>
GROSS VALUE	100.0	190.4	205.5	221.6	241.0	290.1	335.0	382.0	410.4	455.0	676.6	790.4	839.2
1. Government	100.0	190.4	205.5	221.6	241.3	289.1	335.9	381.8	410.5	451.5	673.6	798.3	839.8
2. Private	100.0	190.4	205.5	221.6	240.7	290.9	336.0	382.1	410.3	457.0	677.9	786.5	838.9
a. Residential	100.0	190.4	205.5	221.6	240.7	290.9	336.0	382.1	410.4	-	-	-	-
b. Non-residential	100.0	190.4	205.5	221.6	240.7	290.8	336.0	382.1	410.3	-	-	-	-
GROSS VALUE ADDED	100.0	172.2	186.2	204.0	211.8	249.6	298.5	335.5	362.7	399.7	532.0	646.0	670.8
1. Government	100.0	170.4	183.7	204.1	211.5	248.9	298.5	335.0	362.8	397.3	529.9	650.6	673.3
2. Private	100.0	173.2	187.8	203.8	212.1	250.2	298.5	335.1	362.6	401.0	533.0	643.4	669.0

<sup>1</sup>Preliminary estimates as of May 1987.  
Source: National Accounts Staff, Statistical Coordination Office,  
National Economic and Development Authority.

Table 3.25 - GROSS VALUE ADDED IN ELECTRICITY AND WATER BY INDUSTRY GROUP: 1972 TO 1986  
(in million pesos at current prices)

Industry group	1972	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 <sup>1</sup>
1. Electricity and gas	436.0	957.0	1,091.0	1,265.0	1,519.0	1,877.0	2,428.0	2,885.0	3,449.0	4,561.0	7,090.0	9,799.0	11,519.0
2. Water	32.0	131.0	139.0	150.0	180.0	247.0	335.0	460.0	581.0	895.0	890.0	1,187.0	1,655.0
ELECTRICITY, GAS AND WATER	468.0	1,088.0	1,230.0	1,415.0	1,699.0	2,124.0	2,763.0	3,345.0	4,030.0	5,256.0	7,980.0	10,986.0	13,174.0

<sup>1</sup>Preliminary estimates as of May 1987.  
Source: National Accounts Staff, Statistical Coordination Office,  
National Economic and Development Authority.

(2) 建設資材費指數

Table 10-03A  
RETAIL PRICE INDEX OF CONSTRUCTION MATERIALS IN METRO MANILA, 1976-1986  
(1976 = 100.0)

Year	All Items	Carpentry Materials	Electrical Materials	Masonry Materials	Painting Materials	Plumbing Materials	Tinsmithry Materials	Other Materials
1976	83.4	76.3	84.9	85.0	94.9	80.2	87.1	85.5
1977	91.2	91.0	99.2	93.3	99.7	86.3	93.2	85.3
1978	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1979	127.6	134.1	125.8	131.4	117.5	118.3	119.0	124.4
1980	150.5	165.7	147.3	163.9	136.2	130.9	131.9	131.3
1981	161.7	176.3	157.6	177.3	149.6	142.1	157.0	133.1
1982	167.2	174.8	165.4	197.0	156.9	149.9	169.5	128.4
1983	188.9	190.4	189.7	219.3	189.5	172.3	204.2	155.9
1984	327.8	316.5	347.4	335.9	298.7	345.1	426.9	285.6
1985	350.4	339.8	359.9	361.1	337.0	370.4	478.7	282.6
1986	339.2	336.0	354.4	352.4	336.1	374.4	406.2	277.0

Source of data: MCSI, Prices Division

## 2-3 労務 (A・C)

### (1) 労務賃金

建設労働者の職種としては土工、鉄筋工、コンクリート工等に分類されており、賃金は各々技能レベルにランク付けされている。次に示す表は、各々の職種の熟練工と普通工の平均的1日当たりの賃金である。

職種別日給(単位:ペソ)

	熟練工	普通工
土 工	75.52	68.96
鉄 筋 工	75.52	68.96
コンクリート工	75.52	68.96
組 積 工	75.52	68.96
左 官 工	75.52	68.96
大 工	77.60	—
内 装 工	68.96	—
塗 装 工	72.48	68.96
タ イ ル 工	72.48	68.96
石 工	72.48	68.96
防 水 工	72.48	68.96
鉄骨工(加工)	72.48	68.96
＃ (建方)	75.22	68.96
ガ ラ ス 工	72.48	68.96
溶 接 工	84.16	68.96
金 属 工	72.48	68.96
型 枠 大 工	72.48	68.96

## (2) 最低賃金

## 最低賃金、生活手当及び13ヶ月支払金

YEAR	MINIMUM WAGE	LIVING ALLOWANCE	13 MONTH PAY	LEGISLATED WAGE RATE
1972.....P	8.00	P --	P --	P 8.00
1973.....P	8.00	--	--	8.00
1974.....	8.00	1.98	--	9.98
1975.....	8.00	1.98	.67	10.65
1976.....	10.00	1.98	.83	12.81
1977.....	10.00	4.36	.83	15.19
1978.....	11.00	4.36	.92	16.28
1979.....	13.00	9.12	1.08	23.20
1980.....	14.00	14.68	1.17	29.85
1981.....	18.00	12.32	1.50	31.82
1982.....	18.00	12.32	1.50	31.82
1983				
06 July.	19.00	13.82	1.58	34.40
01 Oct.	19.00	14.82	1.58	35.40
01 Nov.	20.00	17.82	1.67	39.49
01 Dec.	21.00	19.32	1.75	42.07
1984				
01 May	32.00	9.00	2.67	43.67
16 June.	35.00	14.00	2.92	51.92
01 Nov.	37.00	17.00	3.08	57.08
•				
•				
•				
1986	54.00			
1987				
14 Dec.	64.00			

(3) 労務歩掛

: 現地聴き取り調査による。調査対象は P. 34 参照。

Labour Constants

It is assumed that one working day includes 8 hours.

No.	TRADE	APPLICATION	AVERAGE-OUTPUT PER MAN-DAY				
			A(L)	B(L)	C(M)	G(GOVT)	
1.	Excavation	hand excavation 2m deep four- dation base	1.00 /m <sup>3</sup> /md	48.00 /m <sup>3</sup> /md	1.20 /m <sup>3</sup> /md	3.04 to 6.08 /m <sup>3</sup> /md	
2.	Concreting	using a mixer reinforced con- crete floors incl. mixing, transport & placing	1.00 /m <sup>3</sup> /md	48.00 /m <sup>3</sup> /md	1.00 /m <sup>3</sup> /md	3.44 /m <sup>3</sup> /md	
3.	Form Work	floor slab	15.00 /m <sup>2</sup> /md	104.00 /m <sup>3</sup> /md	0.70 /m <sup>2</sup> /md	7.44 /m <sup>2</sup> /md	
4.	Reinforcement Steel Work	columns steel fixing	0.10 /t/md	8,950.00 /t/md	0.08 /t/md	0.09 t/md	
5.	Brick Work	one brick wall common bricks	8.00 /m <sup>2</sup> /md	11.50 /m <sup>2</sup> /md	9.00 /m <sup>2</sup> /md	7.68 /m <sup>2</sup> /md	
6.	Plastering to Wall	20mm thick	10.00 /m <sup>2</sup> /md	12.00 /m <sup>2</sup> /md	8.00 /m <sup>2</sup> /md	4.56 /m <sup>2</sup> /md	



(4) 工事保険

: 現地聴き取り調査による。調査対象は p. 34 参照。

Construction Insurance

It is assumed that this construction site is located in the central area of the city and the total floor area is 3,000 m<sup>2</sup>.

No.	Item	Unit	A(L)	B(L)	C(M)	G(GOVT)
1.	Building construction insurance: (What percent of the total contract price do you allow?)	%	0.80 %		10 % including payment of 20 % of the premium.	--
2.	Liability insurance: (What percent of the total contract price do you allow?)	%	4.00 %	As per contract requirements of the tech. specs & documents	15 %	--
3.	Worker's liability compensation insurance: (What percent of the total wage do you allow?)	%	18.80 %		20 %	--
4.	Automobile insurance: (What percent of the insured amount do you allow?)	%	4.00 %		20 %	--

2-4 資材及び建設機械 (A・D)

(1)-1 資材費

DATABANK SURVEY: RETAIL PRICES OF CONSTRUCTION MATERIALS IN METRO MANILA AND ENVIRONS FOR THE MONTH OF SEPTEMBER 1985		
AVERAGE RETAIL PRICES OF CONSTRUCTION MATERIALS AND SUPPLIES IN METRO-MANILA AND ENVIRONS (For the month of September, 1985)		
ITEMS	UNIT	PRICE (P)
<b>G. I. Sheets (roofing)</b>		
Corrugated, gauge #26 x 32"	Linear Ft.	12.97
Corrugated, gauge #31 x 32"	"	9.19
Plain, gauge #26 x 36"	"	12.97
<b>Cement Portland, 40 kg.</b>	Bag	44.33
<b>White Cement:</b>		
Prime (local)	Bag	242.86
<b>Lumber, commercial sizes 10' x 16'</b>		
Yakal	Board Ft.	8.33
Guijo	"	8.33
Tanguile	"	4.97
Red Lauan	"	4.97
Apitong	"	4.97
<b>Plywood, Lauan, Rotary Cut</b>		
1/4" x 4' x 8'	Sheet	65.00
1/2" x 4' x 8'	"	129.57
1/8" x 4' x 8'	"	51.29
3/16" x 4' x 8'	"	58.71
3/4" x 4' x 8'	"	174.57
<b>Plywood, Narra/Dao</b>		
1/4" x 4' x 8'	Sheet	95.29
1/2" x 4' x 8'	"	181.20
<b>Plywood, Marine Type</b>		
1/4" x 4' x 8'	Sheet	79.33
1/2" x 4' x 8'	"	165.00
3/4" x 4' x 8'	"	244.00
<b>Lawanit Board, standard</b>		
1/8" x 4' x 8'	Sheet	67.00
3/16" x 4' x 8'	"	79.40
1/4" x 4' x 8'	"	97.33
<b>Lawanit Board, tempered</b>		
1/8" x 4' x 8'	Sheet	97.10
3/16" x 4' x 8'	"	118.00
1/4" x 4' x 8'	"	150.00

## (1)-2 實材費

DATABANK SURVEY: RETAIL PRICES OF CONSTRUCTION MATERIALS IN METRO MANILA AND ENVIRONS FOR THE MONTH OF SEPTEMBER 1985		
ITEMS	UNIT	PRICE (P)
<b>Brightroom Stock Panels (Suggested Retail Price)</b>		
Brightboards 4.2 mm x 4' x 8'		
Ivory White	Sheet	80.00
Mahogany Red	"	80.00
Avocado Green	"	60.00
Golden Yellow	"	60.00
Random Panels 5.2 mm x 4' x 8'		
Tanguila Random	Sheet	68.00
Narra Random	"	88.00
OSB Core Boards 4' x 8'		
3.2 mm	Sheet	39.00
4.2 mm	"	50.00
10 mm	"	92.00
Floor Wood Boards 4' x 8'		
12 mm Tanguila Random	Sheet	150.00
<b>Concrete Hollow Blocks (CHB)</b>		
Ordinary class D (yard)		
8" x 8" x 16"	Each	2.35
4" x 8" x 16"	"	2.25
First Class CHB (load-bearing - 750 psi)		
6" x 8" x 16"	Each	4.35
4" x 8" x 16"	"	4.15
<b>Concrete Pipe, non-reinforced</b>		
8" x 13/8" x 1 m.	Each	43.13
6" x 13/8" x 1 m.	"	27.38
4" x 13/8" x 1 m.	"	21.00
<b>Faucets, U. S.:</b>		
Plain, Brass, 1/2"	Each	46.25
Plain, Brass, 3/4"	"	63.00
Hose, Brass, 1/2"	"	49.00
<b>Faucets, Local:</b>		
Plain, Brass, 1/2"	Each	31.50
Plain, Brass, 3/4"	"	37.75
Plain, Nickel, 1/2"	"	36.00
Hose, Nickel, 1/2"	"	38.67
<b>Square Bars, 20':</b>		
3/8" x 3/8"	Each	24.50
1/2" x 1/2"	"	31.55
5/8" x 5/8"	"	94.50
<b>Round Bars, 20':</b>		
1/4" (6mm)	Each	9.65
3/4" (Std) (20mm)	"	104.10
3/8" (10mm)	"	25.15
1/2" (12mm)	"	31.95
5/8" (16mm)	"	58.50
<b>Angle Bars, 20':</b>		
1/8" x 3/4"	Each	51.00
1/8" x 1"	"	64.00
3/16" x 1"	"	100.03
1/4" x 1"	"	127.50
3/8" x 3"	"	585.00
<b>Flat Bars mm. size, 20':</b>		
1/8" x 3/8"	Each	22.50
1/8" x 1/2"	"	20.00
3/16" x 1"	"	52.50
1/4" x 1/2"	"	42.50

## (1)-3 資材費

DATABANK SURVEY: RETAIL PRICES OF CONSTRUCTION MATERIALS IN METRO MANILA AND ENVIRONS FOR THE MONTH OF SEPTEMBER 1985		
ITEMS	UNIT	PRICE (P)
Masonry Wall Reinforcement (Durowal), 10':		
4"	Each	12.10
6"	"	12.25
Vigan Tiles:		
12" x 12"	Each	6.00
Barbed wire, local	Meter	15.33
Paint		
Quick Drying Enamel, White		
Dutch Boy	4 lts.	185.50
Sinclair	"	185.75
Boysen	"	192.20
Nation	"	178.50
Master	"	179.80
Flat Wall Enamel		
Dutch Boy	"	150.97
Sinclair	"	136.33
Boysen	"	155.00
Nation	"	162.00
Tufflon	"	163.00
Exterior HOuse Paint		
Dutch Boy	"	181.91
Sinclair	"	176.67
Boysen	"	182.60
Nation	"	185.00
Tufflon	"	185.00
Exterior Wood Primer		
Dutch Boy	"	183.50
Sinclair	"	189.50
Boysen	"	195.31
Nation	"	170.00
Acrylic Emulsion Latex		
Sinclair	"	131.50
Boysen	"	135.00
Nation	"	137.50
Gloss Latex		
Dutch Boy	"	167.70
Sinclair	"	187.00
Boysen	"	166.67
Nation	"	148.80
Semi-Gloss Latex		
Dutch Boy	"	158.73
Sinclair	"	210.33
Boysen	"	172.60
Nation	"	175.00
Flat Latex		
Tufflon	"	180.00
Portland Cement Roof Paint (Green)		
Dutch Boy	"	173.11
Sinclair	"	193.00
Boysen	"	188.50
Nation	"	184.50
Tufflon	"	190.00
Roof Paint		
Dutch Boy	"	190.00
Sinclair	"	200.37
Boysen	"	204.00

## (1)-4 資材費

DATABANK SURVEY: RETAIL PRICES OF CONSTRUCTION MATERIALS IN METRO MANILA AND ENVIRONS FOR THE MONTH OF SEPTEMBER 1985		
ITEMS	UNIT	PRICE (P)
<b>G. I. Wire:</b>		
#16	Kilo	17.50
#14	"	17.25
#12	"	17.25
#10	"	17.25
<b>G. I. Pipes (ordinary) 20':</b>		
1/2"	Each	79.25
3/4"	"	107.00
1"	"	154.25
1-1/2"	"	249.25
2"	"	314.25
<b>Black Iron Pipes, 20':</b>		
1/2"	Each	58.50
1"	"	135.00
1-1/2"	"	176.00
2"	"	241.00
<b>Post Strap, 20':</b>		
1/4" x 1-1/2"	Pair	23.00
1/4" x 2"	"	27.67
3/16" x 2"	"	21.50
3/16" x 1-1/2"	"	18.50
<b>Machine Bolts with Nuts:</b>		
1" x 5"	Piece	5.80
5/8" x 6"	"	5.55
<b>Faucet Sinks, C. P. Ordinary:</b>		
Plain brass 1/2", U. S.	Each	50.00
<b>Common Wire Nails:</b>		
1" - 1-1/2"	Kilo	14.00
2" - 2-1/2"	"	14.00
3" and up	"	14.00
<b>Finishing Nails:</b>		
1" - 1-1/2"	Kilo	14.38
2" - 2-1/2"	"	14.38
3" and up	"	14.38
<b>Galvanized Iron Roofing Nails:</b>		
2" - 2-1/2"	Kilo	21.13
<b>Sand</b>		
White (ordinary)	Cu. m.	115.00
Black (ordinary)	"	80.00
White (porac)	"	120.50
<b>Gravel (crushed)</b>		
G-1	Cu. m.	157.75
3/4	"	158.75
3/8	"	130.00
<b>Tiles:</b>		
<b>Pioneer floor tiles, White, unglazed:</b>		
4-1/4" x 4-1/4", class A	Each	2.20
4-1/4" x 4-1/4", class B	"	1.75
<b>Fil-Hispano, white, unglazed:</b>		
4-1/4" x 4-1/4", premium	Each	1.37
4-1/4" x 4-1/4", century	"	1.37
<b>Mariwasa, white, unglazed:</b>		
4-1/4" x 4-1/4", premium	Each	1.40
4-1/4" x 4-1/4", century	"	

## (1)-5 資材費

DATABANK SURVEY: RETAIL PRICES OF CONSTRUCTION MATERIALS IN METRO MANILA AND ENVIRONS FOR THE MONTH OF SEPTEMBER 1985		
ITEMS	UNIT	PRICE (P)
Door Hinges:		
3" x 3" (Germany)	Per pair	16.75
4" x 4" "	"	24.50
Door Lockset (Kwikset brand) U. S.:		
Entrance lockset with key	Each	300.00
Bedroom lockset with key	"	300.00
Bathroom lockset with key	"	250.00
Doorlockset (Schlage, U. S.)		
Entrance lockset with key	Each	750.00
Bedroom lockset with key	"	750.00
Bathroom lockset with key	"	700.00
Eternit Asbestos Roofing, Corrugated:		
4.5 mm x 38-1/2" x 6'	Sheet	223.85
7'	"	261.35
8'	"	297.70
9'	"	335.20
10'	"	372.65
Concrete Roof Tiles		
Tegula	Each	9.50
Bahay Tisa	"	24.00
Contrax	"	9.50
Metal Roofing Sheets		
Metal Forming (Rib - 6)	Linear Ft.	27.45
Mindanao Steel	"	23.60
Fiber Reinforced Cement Sheet		
Grandspan (Spanish Alto)	"	10.50
Electrical Supplies:		
THHN (Phelps Dodge) #12	Roll	318.00
" " #14	"	226.00
BX Cable Wire #14	Meter	15.00
Tumbler Switch Bakelite (Eagle)	Each	19.00
Covernient Outlet Surface	"	15.00
Receptacle Bakelite	"	8.50
Receptacle Rubberized (Eagle)	"	18.50
Split Knob Porcelain	"	1.50
Flush Outlet Local Bakelite duplex	"	8.50
Socket Bakelite with Key (Japan)	"	12.50
Bulbs:		
15 - 75 Watts: Pemco	Each	9.75
G. E.	"	10.00
Philips	"	10.00
100 Watts: Pemco	"	10.25
G. E.	"	10.25
Philips	"	10.25
Flourescent lamps:		
20 Watts: Pemco	Each	26.50
G. E.	"	26.50
Philips	"	26.50
40 Watts: Pemco	Each	31.50
G. E.	"	30.00
Philips	"	30.00
Flush Outlet Local (Eagle)	Each	22.50
Bathroom fixtures (Saniwares)		
Lavatory (plain white)	Each	1,750.00
Toilet Bowl (plain white)	"	2,300.00
Bathtub (plain white)	"	3,400.00
Toilet paper holder (plain white)	"	75.00
Soap wall container (plain white)	"	70.00

(2) 建設機械

: 現地ヒヤック取り調査による。調査対象は P.34 参照。

Machinery Hired by Contractor

It is assumed that this machinery is acquired on a lease basis.

No.	ITEM	COST /DAY		B(L)	C(M)	G(GOVT)
		A(L)				
1.	Motor lorry, not exceeding 5 tons	2,140.32 /day	-- /day	196.00 /day (2) Two	3,500.00 /day	196.00 /op.hr.
2.	Concrete mixer 10/7	4,939.20 /day		400.00 /day	4,000.00 /day	630.00 /op.hr.
3.	Bar machine hand operated	25.69 /day			1,500.00 /day	100.00 /op.hr.
4.	Mechanical excavator with single equipment	3,889.62 /day 1.03 cap.		1,856.40 /day	2,600.00 /day	3,360.00 /op.hr.
5.	Crane	4,884.32 /day 35 cm cap.		7,480.00 /day 50 tons	4,500.00* /day 6,000.00**	2,009.00 /op.hr. /day

Note: \* : Standard Lattice boom  
\*\* : Mechanically operated

## 2-5 工法 (A・E)

: 現地聴き取り調査による。調査対象は p.34 参照。

### (1) 建築工法

#### METHODS OF CONSTRUCTION

1) Can you point out any special information which is crucial to designing a building for this country?

Soil Condition & Foundation, Typhoon prone area and seismic.

2) What is the main structure for the following buildings? (R.C., Steel, Brick, etc.)

a) Housing - R.C.

b) Major Public Works Departmental Buildings - R.C. and steel depending on height.

3) What is the general construction method for each of the following trades? (ie. What equipment, labour, technology and materials are utilized?)

a) Scaffolding - Assorted from lumber

b) Excavating - Either manpower labor or by excavating equipment

c) Concrete work - By Cast-in place concrete mix or by pre-cast concrete

d) Form work - By the use of Acro-beams & props or assorted form lumber.

e) Reinforcement steel - By manpower labor



## 2-6 法律 (A・F)

: 現地聴き取り調査による。調査対象は D.34 参照。

### (1) 入札及び契約

#### TENDERING AND CONTRACTING PROCEDURE:

- 1) What is the basic method of tendering and contracting for a public service project?

All government infrastructure projects for implementation are advertised in daily newspaper, prequalification stage follows and open tendering of bid shall commence. Award of contract shall be made to a bidder who submit the most advantageous bid conforming to the requirements of the Government.

- 2) What is the standard method of tendering? (ie. selective or open tendering)

In open tendering, all tenders shall be read first to check if they are complying with the technical requirements of the PBAC-DPWH, then the approved agency estimate follows.

- 3) Who acts as the Contract Manager in the case of a public service contract? (ie the contractor or a public servant)

The Secretariat of the Prequalification Bid & Award Committee shall preside in the tendering of bid witnessed by contractor's representatives. A government official is usually designated as the Contract Manager.

#### For the Public Works Department:

- 1) Could you please provide us with an organizational chart of the Public Works Department, including descriptions of the individual positions and the number of staff involved.

- 2) What is the overall budget for the department for one years term?

What is the amount of the workload (ie. number of projects)?

c/o DPWH

## 2-7 統計及び経済指数 (A・G)

### (1) 経済状況

Gross National Product And Per Capita GNP, 1974-1984  
(At Constant 1972 Prices)

Year	GNP (Million Pesos)	Growth Rate, Percent	Per Capita GNP (Pesos)	Growth Rate Percent
1974	64,575	5.6	1,566	2.3
1975	68,457	6.0	1,622	3.6
1976	73,472	7.3	1,703	5.0
1977	78,151	6.4	1,766	3.7
1978	82,643	5.8	1,817	2.9
1979	88,356	6.9	1,876	3.2
1980	92,840	5.1	1,921	2.4
1981	96,041	3.4	1,940	1.0
1982	98,581	2.6	1,943	0.2
1983	98,767	1.3	1,897	(2.4)
1984	93,519	(5.3)	1,750	(7.7)

( ) Negative value

Source of basic data: NBDA, National Accounts Staff.

Table 5.1  
GROSS VALUE ADDED IN THE INDUSTRIAL SECTOR, 1986-92  
(In million pesos at 1972 prices)

	Estimates 1986	Targets					
		1987	1988	1989	1990	1991	1992
INDUSTRY	28,409	30,987	33,736	36,492	39,533	42,911	47,058
Mining and quarrying	1,817	1,872	1,938	2,016	2,108	2,212	2,323
Manufacturing	21,892	23,210	24,835	26,698	28,780	31,069	33,675
Construction	3,607	4,528	5,476	6,172	6,885	7,722	8,962
Electricity, gas and water	1,293	1,377	1,487	1,608	1,750	1,908	2,099

Source: NEDA.

Table 5.2  
GROSS VALUE ADDED IN THE INDUSTRIAL SECTOR, 1986-92  
GROWTH RATES  
(In percent)

	Estimates 1986	Targets						Average growth 1987-92
		1987	1988	1989	1990	1991	1992	
INDUSTRY	-1.6	9.1	8.9	8.2	8.3	8.5	9.7	8.8
Mining and quarrying	3.0	3.0	3.5	4.0	4.6	4.9	5.0	4.2
Manufacturing	0.3	7.0	7.0	7.5	7.8	8.0	8.4	7.6
Construction	-15.1	25.5	20.8	12.7	11.7	12.0	18.1	16.5
Electricity, gas and water	4.0	6.5	8.0	8.0	9.0	9.0	10.0	8.4

Source: NEDA.

## (2) 就業率及び雇用比率

Table 6.5  
Distribution Of Employment By Type Of Industry, 1976-1984

	1976	1977	1978	1980	1981	1982	1983	1984A	Growth Rate 1981-1984 (Percent)
<b>PHILIPPINES</b>	<b>14,238</b>	<b>14,334</b>	<b>16,101</b>	<b>16,434</b>	<b>17,452</b>	<b>17,371</b>	<b>19,212</b>	<b>19,673</b>	<b>2.4</b>
Agriculture, fishery and forestry	7,659	7,474	8,403	8,453	8,928	8,919	9,880	9,733	(1.5)
Mining and quarrying	81	52	61	94	80	75	102	141	38.2
Manufacturing	1,598	1,515	1,743	1,814	1,807	1,741	1,887	1,940	2.8
Electricity, gas and water	51	42	50	58	66	53	78	75	(3.8)
Construction	429	484	516	588	592	604	697	743	6.5
Wholesale and retail trade	1,397	1,355	1,626	1,660	1,956	1,916	2,197	2,464	12.1
Transportation, storage and communication	600	681	696	732	734	758	831	891	7.2
Financing, insurance, real estate and business services	2,375	338	355	336	324	383	356	385	8.1
Community, social and personal services		2,298	2,620	2,693	2,950	2,922	3,184	3,301	3.7
Activities not adequately defined	47	96	30	6	4				

NOTES: 1. Data were based on the third quarter survey of the ISH.  
2. 1979 data are still being processed.  
3. Percentage may not add up to 100 due to rounding.

A Preliminary and weighted data

Source of basic data: NCSO, National Census and Household Survey Department, 1976-1984 ISH.

Table 6.5 (Continued)  
Distribution Of Employment By Type Of Industry, 1976-1984

	1976	1977	1978	1980	1981	1982	1983	1984
<b>PHILIPPINES</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Agriculture, fishery and forestry	55.8	52.1	52.2	51.4	51.2	51.3	51.4	49.5
Mining and quarrying	0.6	0.4	0.4	0.6	0.5	0.4	0.5	0.7
Manufacturing	11.2	10.6	10.8	11.0	10.4	10.0	9.8	9.9
Electricity, gas and water	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.4
Construction	3.0	3.4	3.2	3.6	3.4	3.5	3.6	3.8
Wholesale and retail trade	9.8	9.4	10.1	10.1	11.2	11.0	11.4	12.5
Transportation, storage and communication	4.2	4.8	4.3	4.4	4.2	4.4	4.3	4.5
Financing, insurance, real estate and business services	16.7	2.4	2.2	2.0	1.9	2.2	1.9	2.0
Community, social and personal Services		16.0	16.3	16.4	17.0	16.8	16.6	16.8
Activities not adequately defined	0.3	0.7	0.2	B	B			

NOTES: 1. Data were based on the third quarter survey of the ISH.  
2. 1979 data are still being processed.  
3. Percentage may not add up to 100 due to rounding.

B Less than 0.1 percent.

Source of basic data: NCSO, National Census and Household Survey Department, 1976-1984 ISH.

## 2-8 地域差 (A · L)

### (1) 雇用率

Table 6-02A  
EMPLOYMENT RATE BY REGION, 1976-1978 and 1980-1986  
(In Percent)

Region	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986
Philippines	93.6	95.5	92.9	91.8	91.2	90.6	92.1	89.4	88.9	88.9
National Capital Region	-	-	-	86.4	83.8	81.3	84.7	78.1	73.9	71.4
Region I Ilocos Region	-	-	-	94.0	94.2	93.8	92.8	91.0	90.3	90.6
II Cagayan Valley	-	-	-	93.9	92.7	94.4	95.0	92.0	93.4	93.9
III Central Luzon	-	-	-	88.5	87.5	86.2	86.4	86.8	88.1	88.8
IV Southern Tagalog	-	-	-	91.4	91.6	90.7	91.9	88.7	87.6	89.8
V Bicol Region	-	-	-	93.8	93.8	93.8	95.3	92.1	93.5	92.5
VI Western Visayas	-	-	-	92.4	91.6	90.4	93.6	89.6	90.8	89.2
VII Central Visayas	-	-	-	92.5	93.0	92.9	95.0	94.9	93.0	94.4
VIII Eastern Visayas	-	-	-	93.6	92.8	94.4	95.3	90.3	91.9	94.4
IX Western Mindanao	-	-	-	92.4	92.5	92.2	92.4	95.7	92.7	93.3
X Northern Mindanao	-	-	-	92.0	92.0	92.3	92.6	91.2	91.3	90.9
XI Southern Mindanao	-	-	-	94.3	93.0	93.2	94.1	90.7	92.6	90.2
XII Central Mindanao	-	-	-	96.3	94.9	94.7	96.5	95.5	94.6	94.9

Note: Data were based on the October round of the ISH, using past week as reference period.

Source of data: NCSO, Integrated Survey of Households

### (2)-1 建設工事費、床面積

Table 6.9 - NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION BY TYPE OF BUILDING AND BY REGION, 1985 to 1985 (continued)  
(Value in thousand pesos; area in thousand square meters)

Year/Region	Total			Residential			Non-residential			Additions, alterations and/or repairs		
	Number <sup>1</sup>	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value
1980	39,104	5,881	5,734,241	21,966	2,552	2,339,109	5,453	2,806	2,802,780	11,685	521	592,351
Metropolitan Manila Area (National Capital Region)	11,962	2,714	3,007,149	7,565	1,173	1,250,151	1,107	1,274	1,395,035	3,290	266	361,963
Region 1	2,189	204	183,574	945	92	77,399	238	90	82,405	1,006	22	23,770
Region 2	1,260	148	106,897	700	63	47,832	356	79	54,664	204	5	4,401
Region 3	2,503	430	466,298	1,808	169	145,950	443	238	303,313	252	22	17,155
Region 4	4,659	595	538,108	2,988	266	225,151	562	286	263,312	1,109	42	49,645
Region 5	1,120	161	142,563	632	72	52,736	256	81	78,702	232	8	11,125
Region 6	1,988	262	213,738	1,148	112	87,763	391	114	93,118	449	38	32,835
Region 7	1,997	232	184,154	1,057	121	84,629	197	89	80,566	743	22	18,959
Region 8	1,299	147	114,424	826	79	55,065	230	61	50,773	243	8	7,586
Region 9	1,457	180	152,339	740	69	51,392	251	98	90,032	466	13	10,915
Region 10	2,459	242	180,106	1,108	108	74,539	434	114	99,423	917	29	15,144
Region 11	4,471	379	303,727	1,670	152	126,572	556	184	147,831	2,245	43	29,124
Region 12	1,740	187	141,165	779	76	58,930	432	97	72,726	529	14	9,509
1981	38,805	5,489	6,310,570	23,922	2,477	2,496,437	5,622	2,705	3,306,400	9,261	307	507,733
Metropolitan Manila Area (National Capital Region)	12,568	2,494	3,331,688	7,910	1,130	1,333,200	1,251	1,194	1,712,300	3,407	170	286,188
Region 1	2,060	197	197,581	1,171	106	93,184	220	77	75,663	669	14	28,734
Region 2	923	116	101,342	517	50	42,806	290	62	53,899	116	4	4,637
Region 3	3,285	455	569,628	2,469	211	199,632	531	220	331,428	285	24	38,561
Region 4	4,040	663	695,510	2,856	250	245,374	529	380	423,088	655	23	37,048
Region 5	1,103	141	128,978	599	56	49,330	315	77	71,244	190	8	8,405
Region 6	1,721	273	247,976	1,091	99	86,799	375	163	147,506	255	11	13,675
Region 7	2,431	226	238,382	1,407	123	99,189	327	89	103,296	597	14	35,893
Region 8	1,283	110	90,780	897	58	43,803	225	48	38,035	161	4	8,932
Region 9	1,022	115	106,939	589	55	41,778	189	55	57,034	244	5	8,128
Region 10	2,807	247	202,306	1,292	107	76,877	489	128	106,939	1,026	12	18,490
Region 11	4,396	336	292,877	2,512	167	142,727	611	196	190,638	1,273	13	19,493
Region 12	1,166	116	106,592	613	54	41,736	270	57	55,310	283	6	9,545

<sup>1</sup> refers to the number of building construction permits issued.  
Note: From 1965 to 1975, data on private building construction are for selected areas such as Manila, Caloocan, Quezon City, Pasay City, Makati, Mandaluyong, Paranaque, Navotas, San Juan, and other (32) chartered cities. Since 1976, data include those for the twelve regions and the Metropolitan Manila Area.  
Details do not always add to the total due to rounding.  
Source: National Census and Statistics Office.

(2)-2 建設工事費、床面積

Table 6.9 - NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION BY TYPE OF BUILDING AND BY REGION, 1965 to 1985 (continued)  
(Value in thousand pesos; area in thousand square meters)

Year/Region	Total			Residential		Non-residential				Additions, alterations and/or repairs		
	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value
1982	39,622	5,178	6,042,597	26,352	2,748	2,967,680	4,203	2,159	535,887	9,067	271	535,887
Metropolitan Manila Area (National Capital Region)	16,043	2,749	3,111,117	11,092	1,505	1,812,336	1,225	1,216	343,785	3,469	178	343,785
Region 1	1,715	168	938,584	1,021	87	77,939	182	67	17,148	519	10	17,148
Region 2	619	84	69,320	439	40	35,415	113	39	2,755	357	1	2,755
Region 3	3,361	412	387,647	2,744	234	239,595	371	159	16,205	257	10	16,205
Region 4	3,863	390	338,418	2,875	251	277,689	396	123	35,066	605	18	35,066
Region 5	852	170	123,215	472	46	42,766	156	46	14,755	229	6	14,755
Region 6	1,219	171	143,546	805	65	76,409	222	71	11,086	200	7	11,086
Region 7	2,732	229	184,893	1,466	130	103,597	319	79	24,648	958	14	24,648
Region 8	1,067	103	84,761	684	53	41,050	182	46	4,636	208	2	4,636
Region 9	732	85	57,487	395	32	26,250	141	48	5,152	201	3	5,152
Region 10	2,050	188	176,000	930	81	59,659	273	81	34,081	836	5	34,081
Region 11	4,502	332	302,980	2,942	159	139,196	492	147	19,596	985	12	19,596
Region 12	867	97	74,849	487	44	35,779	131	37	6,974	243	5	6,974
1983	46,927	7,233	8,479,016	32,883	3,575	4,114,569	4,445	3,274	3,722,719	9,599	384	641,722
Metropolitan Manila Area (National Capital Region)	18,995	3,331	4,389,309	13,983	1,964	2,493,555	1,318	1,107	1,468,951	3,694	263	425,802
Region 1	2,035	304	279,517	1,355	126	121,634	237	172	141,296	443	6	16,586
Region 2	1,071	134	118,628	575	58	52,889	324	70	46,007	172	5	8,523
Region 3	4,046	504	538,326	3,348	339	358,265	338	153	137,114	360	12	25,333
Region 4	5,519	606	651,790	4,179	347	397,981	401	207	221,727	836	13	32,033
Region 5	1,154	114	130,261	834	66	69,003	165	43	52,177	155	4	9,082
Region 6	1,530	192	279,336	1,001	92	88,496	253	90	173,749	276	8	17,052
Region 7	2,670	224	216,083	1,454	135	123,057	217	61	62,962	989	22	30,064
Region 8	1,438	1,207	1,356,930	898	77	77,166	234	1,124	1,168,774	307	7	9,985
Region 9	884	80	78,904	512	47	40,851	123	29	31,759	249	5	8,241
Region 10	2,235	385	171,704	1,092	97	76,489	257	76	77,064	886	9	15,830
Region 11	4,483	256	305,297	3,125	177	171,166	488	112	112,146	870	12	21,845
Region 12	970	98	93,931	517	50	44,007	90	31	28,993	362	18	21,336

Table 6.9 - NUMBER, FLOOR AREA AND VALUE OF PRIVATE BUILDING CONSTRUCTION BY TYPE OF BUILDING AND BY REGION, 1965 to 1985 (continued)  
(Value in thousand pesos; area in thousand square meters)

Year/Region	Total			Residential		Non-residential				Additions, alterations and/or repairs		
	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value	Number	Floor area	Value
1984	40,577	5,441	8,216,601	28,095	3,129	4,153,690	3,430	1,912	3,392,966	9,053	336	669,945
Metropolitan Manila Area (National Capital Region)	15,310	2,639	4,831,646	10,937	1,593	2,193,859	1,105	1,067	2,210,361	3,268	229	427,426
Region 1	2,389	215	274,148	1,533	146	173,575	179	61	80,287	657	8	20,285
Region 2	550	82	94,658	312	32	33,648	134	46	54,914	104	3	6,096
Region 3	3,429	530	609,677	2,961	328	477,110	255	190	296,587	214	13	35,980
Region 4	4,819	428	609,367	3,768	318	448,452	309	94	125,028	742	16	35,887
Region 5	890	126	186,412	646	70	110,841	102	52	65,096	142	3	10,475
Region 6	1,940	295	279,182	1,458	129	164,473	179	59	99,750	305	7	14,959
Region 7	2,443	268	311,384	1,519	159	182,907	260	97	121,046	664	13	27,431
Region 8	998	90	114,927	537	45	50,968	183	42	55,175	278	3	8,764
Region 9	771	65	67,949	450	40	40,767	85	20	16,134	235	4	11,048
Region 10	1,894	150	165,694	894	84	91,308	185	57	57,714	815	9	16,672
Region 11	3,994	189	277,697	2,402	134	157,885	343	72	80,521	1,249	20	39,291
Region 12	1,150	114	193,860	660	51	47,877	110	55	130,353	380	8	15,630
1985	30,598	4,558	8,285,127	20,244	2,122	3,101,356	3,390	2,171	4,573,893	6,843	264	611,451
Metropolitan Manila Area (National Capital Region)	11,386	2,404	5,205,208	7,176	911	1,423,473	1,107	1,339	3,418,911	3,102	155	362,821
Region 1	2,270	232	328,362	1,506	146	195,620	232	70	95,848	532	16	36,887
Region 2	448	88	122,245	250	29	30,096	132	56	84,819	66	2	7,331
Region 3	2,272	332	545,790	1,806	190	312,394	235	128	200,891	231	14	32,505
Region 4	4,035	495	662,642	3,222	285	450,207	363	106	177,164	450	13	25,269
Region 5	547	76	114,238	370	37	54,636	124	36	49,249	93	3	10,353
Region 6	1,438	161	241,652	989	93	132,728	158	62	90,714	221	7	18,210
Region 7	1,902	283	334,065	1,333	160	178,734	275	104	121,656	496	18	33,668
Region 8	732	97	123,805	432	36	44,039	144	57	73,030	156	3	8,272
Region 9	540	65	74,013	292	28	28,801	119	35	35,783	129	3	9,429
Region 10	1,397	131	155,563	700	65	70,770	182	57	65,606	515	9	19,188
Region 11	2,760	225	310,529	1,931	109	146,158	228	100	135,367	895	16	29,005
Region 12	780	59	67,015	433	33	33,700	91	21	24,845	256	5	8,511

## 2-9 コンサルタントへの報酬額と業務内容 (A・N)

### (1) コンサルタント料

Table 1: Appraisal Estimate and Actual Project Cost  
(\$ million)

	Appraisal			Actual		
	FEX	LC	Total	FEX	LC	Total
A. Physical Components	6.37	2.57	8.94	6.42	4.04	10.46
B. Consultant Services	0.80	0.30	1.10	1.76	0.17	1.93
C. Contingencies	0.73	0.33	1.06			
Total	<u>7.90</u>	<u>3.20</u>	<u>11.10</u>	<u>8.18</u>	<u>4.21<sup>a/</sup></u>	<u>12.39<sup>a/</sup></u>

<sup>a/</sup> Excluding \$1.85 million comprising PLN's administrative cost.

### 3. 現地建設事情についての刊行物の概要 (B)

#### (1) 出版刊行物リスト

##### 1) アジア開発銀行 (A・D・B) による資料

1. Procurement of Goods. (June 1986)
2. Guide on Prequalification of Civil WORKS Contractors (March 1987)
3. Surply, Delivery & Installation of Goods (July 1986)
4. Procurement of Civil Works (April 1987)
5. Preparation of Project Performance Audit Report (Dec 1986)
6. Project Performance Audit Report (Dec 1987)
7. Guidelines for Economic Analysis of Project (Economics Office)
8. Project Performance Audit Report  
Vocational Education Project in Nepal (Jan 1987)
9. Sixth Report of Selected Post-evaluation Finding (Jan 1987)
10. Economic Analysis of Power Project (Jan 1985)

##### 2) 現地公共工事発注機関 (P・W・H) による資料

1. Implementing Rules & Regulations as Amended (June 1982)
2. Preparation of Government Estimate (July 1982)
3. Government Contract Management Procedures

3) フィリピン・セントラル・バンクによる資料

1. Annual Report Statistical Bulletin (1985)
2. Twenty-five Years of Economic and Financial Statistics  
in the Philippines
3. Central Bank Organization Chart
4. Economic Policies in Support of Private Investments
5. Economic & Financial Developments (Third Quarter 1987)
6. Philippine Financial Statistics (July Dec 1986)
7. Philippine Financial Statistics (Jan June 1987)

4) 経済企画庁 (NEDA) による資料

1. Number of Employed by Major Industry Group,  
and Major Occupation Group (Oct 1987)
2. Gross Regional Domestic Product, by Sector (1972 1985)
3. Consumer Price Index for All Income Households  
in the Philippines (Dec 1987)
4. Economic and Social Indicators (1986)
5. Economic and Social Indicators (1984)
6. Medium-term Philippine Development Plan
7. Statistical Yearbook (1974年版 統計資料)
8. Statistical Yearbook (1980年版 統計資料)
9. Statistical Yearbook (1987年版 統計資料)
10. Official Development Assistance to the Philippines:  
A Study of Administrative Capacity and Performance  
by Romeo A Reyes 1985 NEDA
11. Handbook on Government Contracts by Milagros S. Tante 1985 NEDA
12. Pocketbook of Philippine Statistics (1980)



(2) 情報及び刊行物の入手方法

: 現地聴き取り調査による。調査対象は D.34 参照。

WHERE CAN WE LOCATE THIS INFORMATION & PUBLICATIONS :

- 1) General economic conditions statistical information.  
(eg. Gross Domestic Product, Inflation, Exchange Rate, Employment Rate, Wage Rate, Interest Rate, Industrial Production Index, Consumer Price Index, etc.)  
Department of Trade & Industry, NEDA, Central Bank of the Philippines & Department of Labor & Employment.
- 2) Construction industry statistical information.  
(eg. Ratio of Public/Private Construction Activities, Materials Prices, Employment in the Construction Industry, Wage Rates)  
DPWH, Construction Industry of the Philippines
- 3) Construction cost statistical information.  
(eg. Past records of Construction Costs, Price Book)  
Department of Public Works & Highways.
- 4) Publications of guidelines for procurement of public projects.  
(eg. Standard Conditions of Contract, Standard Method of Measurement for Building Works, Public Service Standing Order)  
Department of Public Works & Highways.

#### 4. 実績コスト調査 (F)

##### (1) 延床面積当り建築単価及び工期

: 現地聴き取り調査による。調査対象は D.34 参照。

##### Local Construction Cost per m<sup>2</sup> & Estimated Construction Period

It is assumed that the construction methods and the buildings finishings are made according to local standards. The building is 1,000 m<sup>2</sup> in size and 2 stories in height. The building includes utilities, but excludes furnishings and air-conditioning.

No.	ITEM	STRUCTURE	COST/M <sup>2</sup> MONTH			
			A(L)	B(L)	C(M)	G(GOVT)
1.	Office Building	R.C.	10,625.00 /m <sup>2</sup> 10 mo.	3,000.00 /m <sup>2</sup> -- mo.	8,000.00 /m <sup>2</sup> 6 mo.	3,500.00 /m <sup>2</sup> 4 mo.
"	"	Brick	8,750.00 /m <sup>2</sup> 10 mo.	2,500.00 /m <sup>2</sup> -- mo.	6,000.00 /m <sup>2</sup> 5 mo.	-- /m <sup>2</sup> 4 mo.
"	"	Steel	9,375.00 /m <sup>2</sup> 8 mo.	2,800.00 /m <sup>2</sup> -- mo.	9,000.00 /m <sup>2</sup> 5 mo.	-- /m <sup>2</sup> 3 mo.
2.	House	R.C.	11,875.00 /m <sup>2</sup> 10 mo.	2,800.00 /m <sup>2</sup> -- mo.	8,000.00 /m <sup>2</sup> 6 mo.	2,500.00 /m <sup>2</sup> 2 mo.
"	"	Brick	9,375.00 /m <sup>2</sup> 8 mo.	2,500.00 /m <sup>2</sup> -- mo.	6,000.00 /m <sup>2</sup> 5 mo.	-- /m <sup>2</sup> 3 mo.
"	"	Wood	10,000.00 /m <sup>2</sup> 10 mo.	2,600.00 /m <sup>2</sup> -- mo.	4,000.00 /m <sup>2</sup> 5 mo.	2,000.00 /m <sup>2</sup> 2 mo.

## 5. 詳細コスト分析 (G)

: 現地聴き取り調査による。調査対象は P. 34 参照。

### (1) 仮設備価格

#### Site Facilities (Services)

No.	ITEM	APPLICATION	COST/UNIT A(L)	B(L)	C(M)	G(GOVT)
1.	Power Supply	basic monthly	3,500.00 to/mo. 5,000.00	1,500.00 /mo.	2,000.00 /mo.	---
		cost/hour	20.00 to/KWH 25.00	6.25 /KWH	3.00 /KWH	---
2.	Water	basic monthly	1,500.00 to/gal 2,500.00	1,200.00 /mo.	1,000.00 /mo.	---
		cost/gallon	0.25 to/gal 0.35	--	0.50	---
3.	Telephone	basic monthly	1,500.00 to/mo. 2,000.00	1,000.00 /mo.	500.00 /mo. singleline w/out ext.	---
		local/minute	-- /min	--	--	---
4.	Telex	basic monthly	12,000.00 to 18,000.00	20,000.00 ave.	--	---
		installation to site office	--	--	--	---

\*Note: G(GOVT) did not respond to these questions

(2) 仮設建物及び敷地測量

Preliminaries

It is assumed that the project site is to be located in the central area of the city and the total floor area is 3,000 m<sup>2</sup>.

NO.	ITEM	COST/UNIT			
		A(L)	B(L)	C(M)	G(GOVT)
1.	<u>Temporary Site Office</u> Temporary site office for the Contractor and Consultant's representatives (10m x 8m).	1,500,000 /m <sup>2</sup>	1,800.00 /m <sup>2</sup>	2,500.00 /m <sup>2</sup>	--
2.	<u>Temporary Storage Shed</u> Temporary site storage shed for construction materials (6m x 10m).	800.00 /m <sup>2</sup>	1,500.00 /m <sup>2</sup>	1,800.00 /m <sup>2</sup>	--
3.	<u>Temporary Enclosures</u> Barbed wire with wooden post H=1.8m at 1.8m intervals.	280.00 /m	120.00 /m	450.00 /m	--
4.	<u>Site Survey</u> The boundaries of the plot shall be determined and marked out.	50.00 /m <sup>2</sup>	L.S. /m <sup>2</sup>	20.00 /m <sup>2</sup>	--

## 6. 現行通用価格及び複合単価 (H)

: 現地聴き取り調査による。調査対象は D.34 参照。

### (1) 資材単価

#### Construction Materials Cost

Assumption: These prices should include the delivery and unloading costs to the specific site.

No.	ITEM	APPLICATION	PRICE /UNIT A(L)	B(L)	C(M)	G(GOVT)
1.	Portland Cement		1,500.00 /ton	53.00 /bag	1,500.00 /ton	1,500.00 /ton
2.	Course aggregate	gravel	231.35 /m <sup>3</sup>	165.00 /m <sup>3</sup>	220.00 /m <sup>3</sup>	190.00 /m <sup>3</sup>
3.	Sand	river sand	127.50 /m <sup>3</sup>	115.00 /m <sup>3</sup>	150.00 /m <sup>3</sup>	150.00 /m <sup>3</sup>
4.	Reinforcement steel bars	round bar 20φ	11,875.00 /ton	8.95 /kg	9,000.00 /ton	7,850.00 /ton
5.	"	ribbed bar 20φ	11,875.00 /ton	-- /ton	8,500.00 /ton	9,500.00 /ton
6.	Brick	common brick one-brick thick	6,312.50 /1000 pcs. 4" thk CHB	5,000.00 /1000 pcs.	6,000.00 /1000 pcs. 6" thk CHB	-- /1000 pcs.
7.	"	facing bricks one-brick thick	6,687.50 /1000 pcs. 6" thk CHB	7.00 /1000 pcs.	-- /1000 pcs.	-- /1000 pcs.
8.	Timber	hardwood	5,028.48 /m <sup>3</sup>	5.50 /m <sup>3</sup>	5,220.00 /m <sup>3</sup> 3,480.00 Ord 10,000.00 Narra	44.38 /m <sup>3</sup> (Yakal)
9.	Plywood		50.44 /m <sup>2</sup> 1/4" thk	40.00 /m <sup>2</sup>	45.00 /m <sup>2</sup>	1/4": 43.77/m <sup>2</sup> 1/2": 84.18/m <sup>2</sup> 3/4": 97.64/m <sup>2</sup>
10.	Plester	finish plester	24.62 /m <sup>2</sup>	45.00 /m <sup>2</sup>	50.00 /m <sup>2</sup>	38.00 /m <sup>2</sup>
11.	Glazing	float glass	470.75 /m <sup>2</sup>	60.00 /m <sup>2</sup>	400.00 /m <sup>2</sup>	484.35 /m <sup>2</sup>
12.	Paint	emulsion paint	45.31 /l	3.78 /l	70.00 /l	-- /l

(2) 勞務賃金

Situation of Labor Cost

1) "All in rates" labour items:

	A(L)	B(L)	C(M)	C(GOVT)
A) GUARANTEED MINIMUM WEEKLY EARNINGS				
1) Basic rate	73.50 /day	430 + fr. benefits & overtime	420 /week	--
2) Guaranteed minimum bonus (or Contractor's bonus allowance)	Total annual basic/ 12mo.	--	one mo. salary	--
B) ANNUAL EMOLUMENTS				
1) Increment weather	Chargeable to co. leave credit	70 /day	50 % daily rate	--
2) Non-productive overtime	N/A	--	--	--
3) Sick pay	5 day /yr.	Rate /day + 70 /day	100 % daily rate	--
4) Trade supervision	4.00 - 22.00	--	--	--
5) Working rule agreement	N/A	--	--	--
C) OVERHEADS IN EMPLOYING LABOUR				
1) C.I.T.B. Training contribution	*	--	--	--
2) National insurance contribution	--	SSS-based on salary range bracket with pay	--	--
3) Annual holiday credit	100 %	--do--	--	--
4) Public holiday credit	100 %	Retrenchment Pay	--	--
5) Severance payments and sundry costs	**	Insurance claims & hazard pay	--	--
6) Employers liability	Covered by SSS & ECC			

\* SSS = 10.50-252.00/mo.  
 Medicare = 0.60-25.00/mo.  
 ECC = 10.00

\*\* 50% of present basic rate X number of years of service

Situation of Labor Cost (cont'd)

No.	ITEM	GRADE	RATING	WAGE/DAY A(L)	B(L)	C(M)	G(GOVT)
2)	Trade Name						
1.	Common Labourer		A	73.60 /day	70.00 /day	70.00 /day	60.00 /day
			B	73.60 /day	70.00 /day	65.00 /day	40.00 /day
			C	73.60 /day	45.00 /day	60.00 /day	40.00 /day
2.	Carpentry	(A) Master carpenter	A	92.50 /day	100.00 /day	120.00 /day	100.00 /day
		(B) Skilled helper	B	83.83 /day	80.00 /day	85.00 /day	75.00 /day
		(C) Unskilled helper	C	78.36 /day	70.00 /day	80.00 /day	2.00 /day
3.	Masonry	(A) Master mason	A	92.50 /day	90.00 /day	120.00 /day	75.00 /day
		(B) Skilled helper	B	83.83 /day	70.00 /day	80.00 /day	60.00 /day
		(C) Unskilled helper	C	78.36 /day	70.00 /day	70.00 /day	50.00 /day
4.	Electrician	(A) Master electrician	A	112.65 /day	120.00 /day	140.00 /day	75.00 /day
		(B) Skilled helper	B	93.18 /day	80.00 /day	90.00 /day	60.00 /day
		(C) Unskilled helper	C	81.98 /day	70.00 /day	80.00 /day	50.00 /day

Note: Comparative Rating of Worker's Skills and Wages

Above Average..... A

Average ..... B

Below Average ..... C

\* .....plus fringe benefits

## 7. 参照用索引 (Z)

### (1) 参照刊行物

1. Project Performance Philippine Development Plan
2. Economic and Social Indicators 1986
3. Economic and Social Indicators 1984
4. Economic and Social Indicators 1986
5. Statistical Yearbook 1987年版

### (2) 現地調査対象者リスト

#### PHILIPPINE QUESTIONNAIRE COMPANY LIST

- A(L) D.M.Consunji Inc.
- B(L) F.F.Cruz & co.Inc.
- C(M) A.L.de Castro Construction
- G(Gov't) Public Works and Highways(P.W.H)









JICA