However, for import cargoes the reduction in time will benefit the foreign consigners, not the Mexican economy. Accordingly, only the reduction of transport period of export cargoes is calculated as the benefit to Mexico. The effect from inventory interest is not considered, because it only transfers from one party to another within the nation.

If the average value of export cargoes is calculated using customs statistics from January to August 1984, the figures are: US$603/ton for agricultural bulk, US$140/ton for mineral bulk such as cement, and US$942/ton for general cargo (excluding petroleum and its by-products).

For calculation purposes, usance interest is estimated as 14% per year based on the American B/A (Bank Acceptance) rate.

Table XI-7 presents the estimated reductions in time costs for export cargoes, that is the benefits from reducing the usance that will accrue to the Mexican economy.

Table XI-7 Reduction in Time Costs

Year	Export Volume ('000 t/year)	Average Cargo Value (US$/t)	Interest (%/year)	Reduction in Export Ship's Staying Period (days)	Reduction in Time Cost ('000,000 pesos)
1987	141	688	14	50	1
1988	206	594	14	98	2
1989	271	546	14	144	4
1990	337	517	14	189	7
1991	↓	↓	↓	↓	↓

2-5 Other Intangible Benefits

2-5-1 Development of Port Related Industries

Without the implementation of the development project, the port of Manzanillo will be operating at capacity simply maintaining the existing cargo flow. Therefore, factories which plan to locate around the port require the development of the port as a prerequisite to their operations. The value added by such companies is therefore an economic benefit of the development project of the port of Manzanillo.

2-5-2 Increase in Employment Opportunities

As for the additional employment directly arising from the project, employment for construction during the construction period and for operation after the facilities are completed are considered.

There is an excess supply of unskilled labor in the region. The construction will provide employment for those people who will remain unemployed if the project does not take place. This employment is one of major benefits of the project. Table XI-8 shows the yearly allocation of this employment effect.

Table XI-8 Yearly Allocation of Employment

(Unit: '000 person-days)

Item	1985	1986	1987	1988	1989	Total
Skilled	4	30	20	16	22	92
Unskilled	15	116	74	59	58	322
Total	19	146	94	75	80	414

The increase of stevedoring needed to load and unload additional cargoes which will pass through the Port due to the construction of new port facilities is also considered as a benefit of the project.

With the new locationof enterprises around the port, employment opportunities for the local population are expected to increase both directly and indirectly. Along with the growth of secondary industries and the subsequent advance of tertiary industries, the income of the local population is expected to rise.

2-5-3 Improvement of Cargo Handling Safety

The existing aprons are too narrow for safe cargo handling. Furthermore, there are no sufficient back-up facilities (warehouses, transit sheds, etc.). It is very difficult to assess the benefits of increased safety in cargo handling in monetary terms. However, by construction of the new wharf and other related facilities, safe cargo handling will be ensured.

3. Costs

3-1 Construction Costs

Table XI-9 and Table XI-10 show construction cost and the cost of purchasing cargo handling equipment divided into local currency and foreign currency portions.

3-2 Maintenance Costs

The costs of maintaining the port facilities, such as the wharves, warehouses, stock-yard and cargo handling equipment, are estimated as a fixed proportion (2% for structures, 5% for machines per year) of the original construction costs. An annual breakdown of the maintenance costs based upon this calculation is shown in Table XI-11.

Table XI-9 Constructions Costs

(Unit: '000,000 pesos)

Facility	1985			1986			1987			1988			1989			Total		
	F/C	L/C	Total	F/C	L/C	Total	F/C	L/C	Total	F/C	L/C	Total	F/C	L/C	Total	F/C	L/C	Total
Channel & Basin	–	–	–	174	350	524	58	116	174	19	39	58	–	–	–	251	505	756
Mineral Bulk Berth	7	172	179	15	340	355	–	–	–	–	–	–	–	–	–	22	512	534
Grain Berth	–	–	–	8	238	246	9	237	246	–	–	–	–	–	–	17	475	492
Container Berth & Yard	–	–	–	–	–	–	8	168	176	21	438	459	1	200	201	30	806	836
Preparation & Temporary Work	–	–	–	1	12	13	–	–	–	–	–	–	–	23	23	1	35	36
Railway & Road	–	–	–	–	–	–	6	2	8	30	29	59	24	26	50	60	57	117
Transit Sheds	–	–	–	–	–	–	12	140	152	13	140	153	25	280	305	50	560	610
Land	–	–	–	–	33	33	–	126	126	–	4	4	–	3	3	–	166	166
Utilities	–	–	–	6	77	83	4	57	61	3	45	48	215	326	541	228	505	733
Navigation Aid	–	–	–	–	–	–	66	10	76	–	–	–	–	–	–	66	10	76
Total	7	172	179	204	1,050	1,254	163	856	1,019	86	695	781	265	858	1,123	725	3,631	4,356
Tax	–	16	16	–	81	81	–	78	78	–	64	64	–	85	85	–	324	324
Grand Total	7	188	195	204	1,131	1,335	163	934	1,097	86	759	845	265	943	1,208	725	3,955	4,680

Note: F/C = Foreign Currency L/C = Local Currency

Table XI-10 Purchase Costs for Cargo Handling Equipment

(Unit: '000,000 pesos)

Facility	1987			1988			1989			Total		
	F/C	L/C	Total	F/C	L/C	Total	F/C	L/C	Total	F/C	L/C	Total
Gantry Crane	–	–	–	–	–	–	610	–	610	610	–	610
Folklift (33 t)	–	–	–	–	–	–	48	–	48	48	–	48
Straddle Carrier	–	–	–	–	–	–	270	–	270	270	–	270
Trailer Head for Container	–	–	–	–	–	–	152	–	152	152	–	152
Container Chassis	–	–	–	–	–	–	96	–	96	96	–	96
Wheel Crane	–	–	–	–	–	–	–	20	20	–	20	20
Tractor	–	–	–	132	–	132	198	–	198	330	–	330
Flat Chassis	–	–	–	–	7	7	–	7	7	–	14	14
Dump Truck	–	–	–	–	–	–	–	16	16	–	16	16
Hopper	30	1	31	30	1	31	–	–	–	60	2	62
Total	30	1	31	162	8	170	1,374	43	1,417	1,566	52	1,618
Tax	–	–	–	–	1	1	–	4	4	–	5	5
Grand Total	30	1	31	162	9	171	1,374	47	1,421	1,566	57	1,623

Note: F/C = Foreign Currency L/C = Local Currency

Table XI-11 Maintenance Costs

(Unit: '000,000 pesos)

Year	Value of Facilities	Total	Rate (%)	Amount
1987	776	776	2 or 5	16
1988	783	1,559	2 or 5	32
1989	1,632	3,191	2 or 5	70
1990	3,112	6,303	2 or 5	156
1991	↓	↓	↓	↓

4. Shadow Pricing

4-1 Calculating Shadow Prices

The purpose of economic analysis is to examine the value of a project to see if it represents an efficient allocation of resources. The values of goods quoted in a given marketplace do not always represent the true value of those goods to the nation. Thus planners often use "shadow pricing" to examine the costs of labor, capital, and imported goods, as well as the benefits of development, to evaluate a project from the economic viewpoint.

All the costs and benefits examined in previous sections have been calculated based on market prices (world prices and domestic prices). There are several ways of applying the concept of shadow pricing, but in this study, the prices of domestic goods and services are revised to shadow prices in an effort to determine a more rational valuation. In general, these shadow prices are intended to represent the international market value, or world prices, of these goods and services.

The market prices are changed to shadow prices using various conversion factors. Specifically, transfer items are excluded, and the concept of shadow pricing is applied selectively.

4-1-1 Exclusion of Transfer Items

In the figures given for construction costs in Section 3-1, above, the foreign currency portion of imported materials and services do not include import duties or sales taxes. Thus these figures are a reasonable statement of the value of these goods and services.

On the other hand, the local currency portion of the construction costs include both sales tax and import duties. These are merely transfer items, which do not actually reflect the consumption of any national resources. Therefore, these transfer costs should be excluded from the economic analysis of the value of the project.

4-1-2 Method of Applying Conversion Factors

Generally, all benefits and costs are divided into labor, trade goods and non-traded goods. Labor is further divided into skilled labor and unskilled labor. The cost of skilled labor is obtained by multiplying its market price by the Conversion Factor for Consumption (CFC), and the cost of unskilled labor is calculated by multiplying its market price by a ratio of the shadow wage rate and the CFC. Traded goods are expressed by the C.I.F. value for imports and by the F.O.B. value for exports. As world prices cannot be directly applied in the case of non-trade goods, a second level analysis is made of the items required for the production of non-trade goods. These items are, in turn, divided into the categories of labor, trade goods and non-trade goods. The Standard Conversion Factor (SCF) is then applied to the remaining value of non-trade goods.

4-2 Calculation of the Conversion Factors

4-2-1 The Standard Conversion Factor (SCF)

Import duties and export subsidies create a price differential between the domestic market and the international market. For the purpose of analysing benefits and costs within the domestic market, the standard conversion factor is applied in order to convert domestic prices to international market prices.

The standard conversion factor is obtained by the following formula:

$$SCF = \frac{I + E}{I + Di + E - De} \quad \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots \text{(XI-2)}$$

where, I: Total amount of imports
E: Total amount of exports
Di: Total amount of import duties
De: Total amount of export duties

The standard conversion factors for the three years from 1981 to 1983 are listed in Table XI-12.

In this study, the mean value for the three year period is used. Thus, the standard conversion factor has a value of 0.939.

Table XI-12 Standard Conversion Factors (SCF)
(exclusive of petroleum)

(Unit: billion pesos)

Item	1981	1982	1983	1981 ~ 1983
Imports (C.I.F.)	593.0	721.6	1,012.6	2,327.2
Exports (F.O.B.)	136.0	273.9	720.2	1,130.1
Import Duties	66.8	82.6	82.2	231.6
Export Duties	0.2	2.1	3.6	5.9
SCF	0.916	0.925	0.957	0.939

Source: Banco de México, "Sistema de Cuentas Nacionales de México 1981 ~ 1983 Indicadores Economicos"

4-2-2 Conversion Factor for Consumption (CFC)

This factor is used for converting the prices of consumer goods from domestic to international prices. This is particularly required to convert domestic labor costs to the corresponding international prices. The conversion factor for consumption is usually calculated in the same manner as the standard conversion factor, replacing total imports and total exports by imports and exports of consumer goods only.

However, due to a lack of the required data, such as duty revenue figures, the conversion factor for consumption could not be calculated directly. In this study, the export duty rate is assumed as a value of 0%, because the rates are very low due to the active promotion of exports; a very small sum of export duties are levied other than the duty from PEMEX. As for the average import duty rate, a value of 35% is assumed which is the average value between the low, 20%, and the high, 50% rates which are applied to the goods which are not supplied in sufficient quantities by domestic producers.

Thus, the conversion factor for consumption has a value of 0.914 calculated based on the above assumptions and the figures presented in Table XI-13.

Table XI-13 Foreign Trade

(Unit: '000,000 US$)

Period	Total	Consumption Goods	Intermediate Goods	Capital Goods
Export				
1983 Jan. ~ Dec.	21,398.8 (100.0%)	1,505.4 (7.0%)	19,664.9 (91.9%)	228.5 (1.1%)
1984 Jan. ~ Aug.	15,365.7 (100.0%)	1,341.3 (8.7%)	13,859.5 (90.4%)	134.9 (0.9%)
Import				
1983 Jan. ~ Dec.	7,720.5 (100.0%)	554.8 (7.2%)	5,346.8 (69.3%)	1,818.9 (23.5%)
1984 Jan. ~ Aug.	6,370.1 (100.0%)	498.2 (7.8%)	4,560.5 (71.6%)	1,311.4 (20.6%)

Source: Banco de México, "Indicadores de Comercio Exterios"

4-2-3 Conversion Factor for Capital Goods (CFCG)

The Conversion Factor for Capital Goods (CFCG) is normally calculated using a formula similar to the one used for the SCF, replacing total imports and total exports by imports and exports of capital goods only.

Due to a lack of the required data, however, a value of 0.882 is adopted as the conversion factor for capital goods based on the following assumption and the figures in Table XI-13. The average import duty is assumed to be 15% as the duties applied to capital goods not produced in sufficient quantities by domestic producers range from 0% to 20%, and the import duty on machinery is 13%. And the export duty rate is assumed as a value of 0% for the same reason as the conversion factor for consumption.

4-2-4 Shadow Wage Rate

For economic analysis, labor costs are usually measured in terms of their opportunity costs, that is the value of lost marginal production for other purpose arising from the employ-

ment of laborers for a given project.

In the Manzanillo project, the cost of skilled labor is calculated based on actual market wages, assuming that the market mechanism is functioning properly. However, as these are domestic costs, they are converted to world prices by multiplying the local wage by the conversion factor for consumption.

Thus, the conversion factor for skilled labor

= (Local market wage rate) x (CFC)

= 1 x 0.914

= 0.914

For unskilled labor, the economic costs are calculated based on a simplified measure of the opportunity costs. Although there is an official minimum wage in Mexico, this wage is not used here for calculating the value of unskilled labor. In Mexico, 40% ~ 50% of the laborers are underemployed, and the minimum wage usually exceeds the wages which are actually paid.

To measure the opportunity cost, that is the value of lost marginal product, the simplified method presented by Little and Mirrless, who are leading economists in the field of social cost-benefit analysis, is adopted. This is half the average additional value per worker in the agricultural sector. This estimate takes into account the fact that the marginal product of unskilled laborers in rural districts is usually less than the average production per laborer in the region: the law of diminishing returns.

In Mexico, half of the average additional value per worker in the agricultural sector was approximately 405 pesos/worker·day in 1984, while, the minimum wage in Jalisco State was 550 pesos/worker·day in the same year. Then, the conversion factor of additional value is estimated as 73.7% of the minimum wage.

Thus, the conversion factor for unskilled labor

= (Minimum wage) x (Conversion factor of additional value) x (CFC)

= (Minimum wage) x 0.737 x 0.914

= (Minimum wage) x 0.674

4-3 Shadow Prices of Benefit Items

4-3-1 Reduction in Staying Costs

The calculation of the reduction in ship's staying costs is based on charter rates and the cost of fuel, both quoted at world prices. Thus, this figure does not have to be converted for economic analysis.

4-3-2 Reduction in Cargo Handling Costs

The conversion factor for personnel expenditures is as follows:

① The conversion factor for skilled labor = 0.914

② The conversion factor for unskilled labor = (Minimum wage) x 0.674

Since the maintenance costs contain many elements, the details of which are unknown, the standard conversion factor (0.939) is employed here as the convension factor for this cost.

The reduction in cargo handling costs converted into the shadow prices using the above conversion factors is presented in Table XI-14.

Table XI-14 Reduction in Cargo Handling Costs (Shadow Price)

(Unit: '000,000 pesos)

Year	Reduction in Labor Cost	Additional Costs			Net Reduction in Handling Costs
		Maintenance	Operation	Total	
1987	24	–	–	–	24
1988	46	–	–	–	46
1989	70	–	–	–	70
1990	120	55	12	67	53
1991	↓	↓	↓	↓	↓

4-3-3 Reduction in Time Costs

Since time costs are based on F.O.B. and American B/A (Bank Acceptance) rates, this figure does not have to be converted.

Table XI-15 sums up the benefits of the project to Mexico taking the shadow price into account.

Table XI-15 Total Benefit to Mexico (Shadow Price)

(Unit: '000,000 pesos)

Year	Reduction in Costs			Total
	Ships' Staying	Cargo Handling	Time	
1987	195	24	1	220
1988	391	46	2	439
1989	587	70	4	661
1990	783	53	7	843
1991	835	53	7	895
	↓	↓	↓	↓

4-4 Shadow Prices of Cost Items

4-4-1 Construction Costs

The breakdown of construction costs by facility type and by currency (foreign and local) is shown in Tables XI-9 and XI-10 above. As imported materials for the project will be exempt from import duties, the foreign exchange portion will be in C.I.F. prices. On the other hand, the conversion factor for the portion of the construction costs paid for in local currency is calculated in the manner described in 4-1-2. The conversion factor for skilled labor is 0.914, exactly the same as the conversion factor for consumption. As for unskilled labor, it is calculated by multiplying the minimum wage by the conversion factor of additional value and the conversion factor for consumption.

The rental of construction equipment consists of rents for various machinery and vehicles including dredgers, paving machinery, dump trucks, and concrete mixing plants, and it is governed by various factors, such as the types of machines and the depreciation methods employed. Hence, it is difficult to evaluate the individual shadow price with acceptable accuracy. Thus, the entire cost is converted using the conversion factor for capital goods calculated above as 0.882.

As for the conversion factor for materials, a value of 0.914 which is the conversion factor for consumption, is employed.

The shadow price of construction costs is presented in Table XI-16.

Table XI-16 Construction Costs (Shadow Price)

(Unit: '000,000 pesos)

Facility	1985	1986	1987	1988	1989	Total
Channel & Basin	–	373	124	41	–	538
Mineral Bulk Berth	136	270	–	–	–	406
Grain Berth	–	187	187	–	–	374
Container Berth & Yard	–	–	134	349	153	636
Preparation & Temporary Work	–	10	–	1	18	29
Railway & Road	–	–	7	50	43	100
Transit Sheds	–	–	115	114	229	458
Land	–	27	103	4	3	137
Utilities	–	72	53	43	469	637
Navigation Aid	–	–	74	–	–	74
Cargo Handling Equipments	–	–	31	166	1,391	1,588
Total	136	939	828	768	2,306	4,977

4-4-2 Maintenance Costs

Since the maintenance costs include various indefinite elements such as repair costs, a simple average of the three conversion factors for consumption, capital goods, and unskilled labor is employed here as the conversion factor for maintenance costs.

Thus, the conversion factor for maintenance costs

= [(CFC) + (CFCG) + (Conversion factor for unskilled labor)] ÷ 3

= (0.914 + 0.882 + 0.674) ÷ 3

= 0.823

Using this conversion factor, the maintenance costs in terms of the shadow price are listed in Table XI-17.

Table XI-17 Maintenance Costs (Shadow Price)

(Unit: '000,000 pesos)

Year	Cost
1987	13
1988	26
1989	58
1990	128
1991	

4-4-3 Summary of the Shadow Prices

The shadow prices of the project expenses are summarized in Table XI-18.

Table XI-18 Total Cost (Shadow Price)

(Unit: '000,000 pesos)

Year	Construction Costs	Maintenance Costs	Total
1985	136	–	136
1986	939	–	939
1987	828	13	841
1988	768	26	794
1989	2,306	58	2,364
1990		128	128
1991			

5. Economic Profitability

5-1 Definition of the Internal Rate of Return (IRR)

As mentioned in Section 1-2, the economic profitability of the project is evaluated in terms of the internal rate of return. The internal rate of return is expressed as a discount ratio satisfying the following equation:

$$\sum_{i=0}^{n-1} \frac{Bi - Ci}{(1 + IRR)^{i}} = 0 \quad \cdots\cdots \quad (XI\text{-}3)$$

where, n: Period of calculating IRR
Bi: Total amount of benefits at i-th year
Ci: Total amount of costs at i-th year

The difference between the "with" and "without" cases is substituted into Bi and Ci.

5-2 Calculation and Assessment of the Internal Rate of Return

Table XI-19 shows the flow of costs and benefits calculated using shadow prices. The internal rate of return is calculated as IRR = 16.04%. The undepreciated amount of facilities which remains in the final year of the project is assessed as a benefit in that year.

There are various views concerning the critical percentage of IRR used to guide the judgement as to whether a project is feasible or not. The leading view is that the project is feasible if the IRR exceeds the opportunity cost of capital.

In port investment projects, IRRs usually range from 10% to 20%. It is generally considered that a project with an IRR of more than around 10% is economically feasible. Even if the economic calculation only takes into account the three items which are easily quantified, the IRR of the project is 16.04%. Therefore, the project is considered feasible.

Table XI-19 Cost/Benefit and IRR (Shadow Price)

IRR (%) = 16.04

(Unit: '000,000 pesos)

Year	Cost	Benefit	Benefit – Cost	P. Cost	P. Benefit	P. Value
1985	136.00	0.00	-136.00	136.00	0.00	-136.00
1986	939.00	0.00	-939.00	809.21	0.00	-809.21
1987	841.00	220.00	-621.00	624.57	163.38	-461.19
1988	794.00	439.00	-355.00	508.16	280.96	-227.20
1989	2,364.00	661.00	-1,703.00	1,303.84	364.57	-939.27
1990	128.00	843.00	715.00	60.84	400.68	339.84
1991	128.00	895.00	767.00	52.43	366.60	314.17
1992	128.00	895.00	767.00	45.18	315.92	270.74
1993	128.00	895.00	767.00	38.94	272.26	233.32
1994	128.00	895.00	767.00	33.56	234.62	201.06
1995	128.00	895.00	767.00	28.92	202.19	173.27
1996	128.00	895.00	767.00	24.92	174.24	149.32
1997	128.00	895.00	767.00	21.48	150.16	128.68
1998	128.00	895.00	767.00	18.51	129.40	110.89
1999	128.00	895.00	767.00	15.95	111.52	95.57
2000	128.00	895.00	767.00	13.74	96.10	82.36
2001	128.00	895.00	767.00	11.84	82.82	70.98
2002	128.00	895.00	767.00	10.21	71.37	61.16
2003	128.00	895.00	767.00	8.80	61.51	52.71
2004	128.00	895.00	767.00	7.58	53.00	45.42
2005	128.00	895.00	767.00	6.53	45.68	39.15
2006	128.00	895.00	767.00	5.63	39.36	33.73
2007	128.00	895.00	767.00	4.85	33.92	29.07
2008	128.00	895.00	767.00	4.18	29.23	25.05
2009	128.00	895.00	767.00	3.60	25.19	21.59
2010	128.00	895.00	767.00	3.11	21.71	18.60
2011	128.00	895.00	767.00	2.68	18.71	16.03
2012	128.00	895.00	767.00	2.31	16.12	13.81
2013	128.00	895.00	767.00	1.99	13.90	11.91
2014	128.00	2,699.00	2,571.00	1.71	36.11	34.40
Total	8,274.00	25,447.00	17,173.00	3,811.17	3,811.23	0.06

Note: P represents the present value.

6. Sensitivity Analysis

6-1 Identification of Cases

Since every project appraisal makes use of forecasting, various uncertain factors enter the projection. Therefore, sensitivity tests are made to see if the project is justifiable when some of these factors are varied.

In this study, one test is made assuming that the growth rate of the GDP after 1986 is only 4.7%, rather than the 6% assumed in the original analysis.

6-2 Result of the Sensitivity Analysis

The result of the sensitivity analysis is presented in Table XI-20. In this alternative case, assuming a GDP growth of 4.7% per year after 1986, the IRR is 11.03%. In the original case, assuming a 6.0% growth rate, the IRR is 16.04%. In both cases, the IRR clearly exceeds 10%.

When we consider this IRR as well as the various intangible benefits (Section 2-5) which cannot be quantified, we conclude that the Short-term Development Project for the port of Manzanillo is unquestionably feasible from an economic viewpoint.

Table XI-20 Cost/Benefit and IRR (Shadow Price) -- Alternative Case

IRR (%) = 11.03

(Unit: '000,000 pesos)

Year	Cost	Benefit	Benefit -- Cost	P. Cost	P. Benefit	P. Value
1985	136.00	0.00	-136.00	136.00	0.00	-136.00
1986	939.00	0.00	-939.00	845.72	0.00	-845.72
1987	841.00	123.00	-718.00	682.21	99.78	-582.43
1988	794.00	246.00	-548.00	580.11	179.73	-400.38
1989	2,364.00	370.00	-1,994.00	1,555.60	243.47	-1,312.13
1990	128.00	451.00	323.00	75.86	267.29	191.43
1991	128.00	614.00	486.00	68.33	327.75	259.42
1992	128.00	750.00	622.00	61.54	360.58	299.04
1993	128.00	750.00	622.00	55.43	324.76	269.33
1994	128.00	750.00	622.00	49.92	292.50	242.58
1995	128.00	750.00	622.00	44.96	263.44	218.48
1996	128.00	750.00	622.00	40.49	237.27	196.78
1997	128.00	750.00	622.00	36.47	213.70	177.23
1998	128.00	750.00	622.00	32.85	192.48	159.63
1999	128.00	750.00	622.00	29.59	173.36	143.77
2000	128.00	750.00	622.00	26.65	156.13	129.48
2001	128.00	750.00	622.00	24.00	140.62	116.62
2002	128.00	750.00	622.00	21.62	126.66	105.04
2003	128.00	750.00	622.00	19.47	114.07	94.60
2004	128.00	750.00	622.00	17.53	102.74	85.21
2005	128.00	750.00	622.00	15.79	92.54	76.75
2006	128.00	750.00	622.00	14.22	83.34	69.12
2007	128.00	750.00	622.00	12.81	75.07	62.26
2008	128.00	750.00	622.00	11.54	67.61	56.07
2009	128.00	750.00	622.00	10.39	60.89	50.50
2010	128.00	750.00	622.00	9.36	54.84	45.48
2011	128.00	750.00	622.00	8.43	49.40	40.97
2012	128.00	750.00	622.00	7.59	44.49	36.90
2013	128.00	750.00	622.00	6.84	40.07	33.23
2014	128.00	2,554.00	2,426.00	6.16	122.90	116.74
Total	8,274.00	20,858.00	12,584.00	4,507.48	4,507.48	0.00

Note: P represents the present value.

CHAPTER XII. FINANCIAL ANALYSIS

CHAPTER XII FINANCIAL ANALYSIS

1. Purpose and Methodology of Financial Analysis

1-1 Purpose

In the economic analysis of the preceding chapter, the economic effectiveness of the investment is studied from the point of view of the national economy. The purpose of the financial analysis of this chapter is ① to ascertain the impact of the present project on the financial condition of the port management body, and ② to examine the profibility of the project itself, to determine whether the project is sound from a financial viewpoint.

In other words, based on the premise that financial control is carried out by business accounting under a self-supporting accounting system, this chapter examines the effects of the project, i.e., the balance of revenues and expenditures, to ascertain the financing situation, and presents the problems found and the measures to be taken.

Needless to say, the ascertainment of financial soundness is possible only through considering the entire state of financial affairs. Therefore, the analysis covers all the financial operations.

1-2 Methodology

The investment effects of this project are analyzed by the following two methods:

① Analysis by financial statements
The financial viability of the project is appraised based on the projected financial statements (income statement, statement of source and application of funds and balance sheet) to analyse revenues and expenditures, fund raising conditions and financial status.

② Analysis by discount cash flow
The profitability of the project itself is analyzed seeking the Financial Rate of Return (FRR) using the Discount Cash Flow Method.
The FRR is a discount rate which makes the net present value of the cash flow (revenue minus cost) equal to zero.

1-3 Assumptions for Financial Analysis

The following points are assumed for the analysis:

① Only the commercial port functions in the inner port are analyzed. The revenues and expenditures connected with the passenger terminal, however, are calculated separately.

② The costs of the construction of infrastructures which are closely related to this project such as railways, roads, industrial water works, water drainage, and power

supply are excluded. However, the costs within the port area are included.

③ A port management body is assumed to control the entire commercial port of the port of Manzanillo including "Servicios Portuarios de Manzanillo, S.A. de C.V.", and this management body is the object of the analysis. The financial status of "Servicios Portuarios de Manzanillo, S.A. de C.V." is analyzed separately.

④ The accounting is carried out according to the business accounting system.

⑤ The financial analysis covers the period from 1985 to 2014.

⑥ The funds necessary to execute this project are to be raised as follows:

- Domestic currency portion: Government funds (Government subsidy)
- Foreign currency portion: Loans from a foreign country under the following loan conditions: Interest rate of 4.75% per annun, and repayment terms of 25 years (with a 7 year grace period)

⑦ The revenue is calculated based on the current port tariff rate authorized by the Mexican government and the stevedoring tariff rate of Manzanillo Port.

⑧ The fixed assets consist of the assets related to the existing facilities and the additional investment. Depreciation is calculated using the straight line method, assuming no residual value. The depreciation period is in accordance with the standards of the Mexican government.

2. Revenues

2-1 Revenue from Port Tariffs

As indicated in the above assumptions, the revenue is calculated using the Mexican government's set tariff rates and the tariff rates set by "Servicios Portuarios de Manzanillo, S.A. de C.V.", not special port tariff rates for the port of Manzanillo determined by the costs arising from this project. The types of dues and charges are explained below.

- Ship charges
  - ① Port dues
    The unit charge per DWT is established on the basis of the tariff, and is multiplied by the per year DWT of entering vessels, classified by type for each year.
  - ② Charge for use of quaywall
    The cumulative total is computed by multiplying the berthing days by the occupied length of quaywall for each year, estimating the number of vessels classified by type and size.
  - ③ Towage
    The unit charge per vessel is established on the basis of the tariff, and is multiplied by the number of vessels entering each year.
  - ④ Water supply
    The unit charge per vessel is estimated on the basis of the tariff from past business records, and is multiplied by the number of vessels entering each year.

- Cargo and facilities charges
  - ① Charge for use of wharf
    The unit charge per ton of cargo is established on the basis of the tariff, and is multipiled by the volume of cargo passing through the facilities each year.

2-2 Revenue from Stevedoring Charges and Storage Fees

The charges and fees are explained below.

- ① Cargo handling charge
  The unit charge per ton of cargo is established on the basis of the tariff, estimating the type of cargo and the handling time, and is multiplied by the volume of cargo to be handled on each route for each year.
  This equals the total tariff collected per year, and would usually be considered as gross income. However, due to the existing contract relations between the port and the longshoremen's union, in this analysis we first subtract the payment to the union.
  Thus the total tariff collected per year minus the payment to the union is considered as the net income to the port management body.
- ② Charge for use of storage facilities
  The unit charge per ton of cargo for use of the storage facilities is established on the

basis of the tariff, and is multified by the estimated cargo staying days and by the volume of cargo using the storage facilities for each year.

③ Others

Other revenues are estimated from past business records, and include rental income from land and facilities.

The current tariff rates, the number of calling vessels, and the volume of cargo passing through the port including the volume of cargo using the storage facilities are shown in Table XII-1, XII-2 and XII-3 respectively.

Table XII-1 Tariff Rate

Item	Application	Tariff (pesos)	Note
1. Port Dues	Tariff x Tonnage (G/T) of ship	24.00 12.00	Foreign Trade Domestic Trade
2. Charge for Use of Quaywall	Tariff x Hours x Occupied length of quaywall by ship	4.60	
3. Charge for Use of Wharf	Tariff x Cargo ton	15.00 30.00 15.00	Foreign Trade – Export " – Import Domestic Trade
4. Charge for Use of Storage Facilities	Tariff x Day x Cargo ton	66.00 135.00 210.00 33.00 67.50 105.00	Warehouse 15 ~ 29 days " 30 ~ 44 " " 45 ~ " Open storage 15 ~ 29 " " 30 ~ 44 " " 45 ~ "
5. Concession Charge	Tariff x m^2 Tariff x Land value	7,500.00 5%	8.00 ~ 250.00 m^2 200.00 ~ 1,000.00 m^2
6. Towage	Tariff per ship	 50,000.00 25,000.00 35,000.00 17,500.00 6,250.00	(over 3,000 G/T) Arrive and leave Turning etc. (under 3,000 G/T) Arrive and leave Turning etc. Overtime by 15 minutes
7. Water Supply	Tariff x m^3	162.00 202.50	National Foreign
8. Cargo Handling Charge	Tariff x Cargo ton		1.001 ~ 2,000 kg

Class	I-1	II-2	II-3	II-4	II-5	II-6
1a.	199.84	368.59	319.17	279.19	279.19	282.73
2a.	181.05	331.51	270.38	230.46	230.46	245.71
3a.	156.38	294.49	221.05	187.54	187.54	208.67
4a.	135.23	263.94	202.80	150.51	150.51	172.21
5a.	116.42	233.40	165.79	120.53	120.53	135.23
6a.	92.31	199.84	122.86	92.31	92.31	98.20

Note: I-1 From ship to quay, or vice versa
II-2 From quay to truck or railway wagon, or vice versa
II-3 From quay to cargo sorting area or transit shed, or vice versa
II-4 From cargo sorting area to warehouse, truck or railway wagon, of vice versa
II-5 Transfer in the same warehouse or within the port area
II-6 From railway wagon to particular warehouse contiguous to the port area

Table XII-2 Number of Ships

Year	Foreign Trade				Domestic Trade	Total
	General Cargo	Container	Agricultural Bulk	Mineral Bulk		
1985	230	0	31	8	31	300
1986	252	10	33	11	30	336
1987	275	20	35	14	29	373
1988	297	30	37	16	28	408
1989	320	40	39	19	27	445
1990	342	50	41	22	26	481
1991	345	57	40	24	27	493
1992	348	63	40	25	27	503
1993	350	70	39	27	28	514
1994	353	76	38	29	29	525
1995	356	82	37	31	30	536

Table XII-3 The Volume of Cargo Passing through Manzanillo Port

1990 (Unit: '000 t)

Package Type	Total Cargo Volume	Direct Cargo			Indirect Cargo				
		Rail	Truck	Sub-total	Store Yard	Storage Facilities	Sub-total	Rail	Truck
Foreign Trade									
General Cargo excluding Scrap Iron	727	78	85	163	356	208	564	142	422
Scrap Iron	60	6	–	6	54	–	54	54	–
(General Cargo Total)	(787)	(84)	(85)	(169)	(410)	(208)	(618)	(196)	(422)
Container Cargo	190	–	57	57	133	—	133	–	133
Grain	813	41	772	813	–	–	–	–	–
Mineral Bulk	334	60	94	154		180	180	73	107
Domestic Trade									
General Cargo	37	7	8	15	14	8	22	4	18
Mineral Bulk	143	43	64	107	–	36	36	14	22
Grand Total	2,304	235	1,080	1,315	557	432	989	287	702

2000 (Unit: '000 t)

Package type	Total Cargo Volume	Direct Cargo			Indirect Cargo				
		Rail	Truck	Sub-total	Store Yard	Storage Facilities	Sub-total	Rail	Truck
Foreign Trade									
General Cargo excluding Scrap Iron	798	137	139	276	94	428	522	104	418
Scrap Iron	128	13	–	13	115	—	115	115	–
(General Cargo Total)	(926)	(150)	(139)	(289)	(209)	(428)	(637)	(219)	(418)
Container Cargo	516		155	155	361	–	361	–	361
Grain	705		355	355	–	350	350	280	70
Mineral Bulk	603	110	110	220	–	383	383	153	230
Domestic Trade									
General Cargo	39	–	16	16	23	–	23	–	23
Mineral Bulk	293	–	216	216	–	77	77	–	77
Grand Total	3,082	260	991	1,251	593	1,238	1,831	652	1,179

3. Expenditures

3-1 Personnel and Others

This item includes the personnel cost and general administration costs for "Servicios Portuarios de Manzanillo, S.A. de C.V." and for the local office of the related governmental agency.

Expenses associated with personnel are calculated on the basis of the number of employees needed. The number of personnel in the future is estimated as the same as at present, considering an advance of working efficiency by mechanization.

As a per capita annual personnel cost, the average annual per capita personnel cost of the industrial port of Lázaro Cárdenas is used, adjusted for inflation.

The general administration cost is 20% of the personnel cost. This percentage is estimated based on experience in Japan.

3-2 Maintenance and Repair Costs

The maintenance and repair costs of the facilities are estimated as a certain proportion (2% for structures, 5% for machines) of the construction or purchase cost of each facility.

3-3 Depreciation Expense

The depreciation expense of existing fixed assets is calculated based on the details of the financial data for each asset. The additional facilities provided by the project are regarded as additional fixed assets. The service life and depreciation rate of each facility are listed in Table XII-4. These are set according to the guidelines of the Mexican government. Based on the depreciation rate, the annual depreciation expense is computed by the straight line method. The fixed assets schedule is indicated in Appendix Table M-8.

3-4 Interest on Long-term Loans

This is calculated in Table XII-5 on the assumption that the foreign currency portion of the project cost is provided by the previously mentioned foreign loans.

Table XII-4 Life Cycle and Depreciation Rate of Main Facilities

Facility	Life Cycle (years)	Depreciation Rate (per year)
Breakwater	50	0.02
Channel	50	0.02
Quaywall	40	0.025
Seawall	50	0.02
Road	25	0.04
Railway	40	0.025
Shed	25	0.04
Warehouse	25	0.04
Storage Yard	25	0.04
Gantry Crane	10	0.1
Cargo Handling Equipment	5	0.2
Vehicles	5	0.2
Tugboat	15	0.067
Water Supply	30	0.033
Drainage	30	0.033
Electricities	10	0.1
Navigation Aids	10	0.1

Table XII-5 Schedule of Long-term Loans

(Unit: '000,000 pesos)

Year	Project Cost			Loan Repayment Amount	Loan Balance at End of Year	Interest Paid on the Loans
	Government Funds	Long-term Loan	Total			
1985	977	7	984		7	
1986	1,130	205	1,335		212	0
1987	936	193	1,129		405	5
1988	768	248	1,016		653	10
1989	990	1,638	2,628		2,291	16
1990					2,291	54
1991					2,291	54
1992					2,291	54
1993				0	2,291	55
1994				8	2,283	58
1995				15	2,268	62
1996				24	2,244	66
1997				83	2,161	95
1998				87	2,074	95
1999				91	1,983	96
2000				96	1,887	96
2001				101	1,786	96
2002				105	1,681	96
2003				110	1,571	96
2004				116	1,455	96
2005				121	1,334	96
2006				127	1,207	96
2007				133	1,074	96
2008				140	934	96
2009				146	788	96
2010				153	635	96
2011				165	470	101
2012				155	315	92
2013				148	167	85
2014				167	0	107

4. Financial Situation

4-1 Evaluation by Financial Statements

Financial statements from 1985 to 2014 are prepared according to the above estimate of revenues and expenditures. Table M-9 is the income statement, Table M-10 is the statement of source and application of funds, and Table M-11 is the balance sheet. These tables are attached in Appendix.

The income statement shows that the operating revenue is sufficient to cover operating expenditures. The balance of revenues and expenditures and the earning position are extremely favorable in that a relatively large amount can be set aside each year as internal reserves. The statement of source and application of funds shows the cash flow after the execution of the project, in order to ascertain the long-term debt or the repayment schedule of the loans.

The projected financial condition of the project is ascertained using various financial ratios.

4-1-1 Financial Ratios Used for Analysis

The following five financial ratios are to be used for analysis. These ratios are adopted for analysis considering those financial ratios which are mostly widely used for the financial analysis of feasibility studies in port projects by the World Bank and the Asian Development Bank.

① Working Ratio . . . . to ascertain the income position

$$\frac{\text{Operating expenses} - \text{Depreciation expense}}{\text{Operating revenue}} \times 100$$

② Operating Ratio . . . . to ascertain the income position

$$\frac{\text{Total operating expenses}}{\text{Total operating revenues}} \times 100$$

③ Return on Net Fixed Assets . . . . to ascertain the earning capacity

$$\frac{\text{Profit after depreciation}}{\text{Net fixed assets at the end of the year}} \times 100$$

④ Interest Earned Ratio . . . . to ascertain interest payment capacity

$$\frac{\text{Profit after depreciation}}{\text{Interest on long-term loans}} \times 100$$

⑤ Debt Service Coverage . . . . to ascertain loan repayment capacity

$$\frac{\text{Operating profit + Depreciation expense}}{\text{Repayment and interest on long-term loans}} \times 100$$

4-1-2 Evaluation of Financial Ratios

For the financial ratios, average figures taken from financial statements are shown in Table XII-6.

① Working Ratio
The working ratio is very good compared with those of the ports in Europe, North America, and Australia.

② Operating Ratio
Like the working ratio, the operating ratio has a very favorable value.

③ Return on Net Fixed Assets
This also is very good when compared with the ports in European and North American countries. Considering the fact that the net fixed assets from the new investment account for an overwhelming proportion of the total net fixed assets, it is noteworthy that the earning capacity taken as a whole is as high as this.

④ Interest Earned Ratio
The high value of this ratio shows the high capability of this port to pay the interest charges.

Table XII-6 Financial Ratios

(Unit: %)

Year	Working Ratio	Operating Ratio	Return on Net Fixed Assets	Interest Earned Ratio	Debt Service Coverage
1985	69.6	95.7	0.75		
1986	64.4	88.3	2.1		
1987	60.0	80.6	3.2	4,650	9,580
1988	56.7	76.6	3.8	3,221	5,963
1989	57.3	76.9	3.1	2,149	3,973
1990	53.0	74.5	3.5	733	1,351
1991	51.4	92.0	0.92	236	1,436
1992	50.0	89.4	1.5	323	1,521
1993	48.6	86.3	2.3	427	1,602
1994	47.3	83.5	3.2	494	1,416
1995	46.1	80.7	4.2	562	1,256
1996	46.1	68.9	7.6	845	1,074
1997	46.1	68.9	7.6	585	543
1998	46.1	68.9	8.2	585	531
1999	46.1	68.4	8.9	593	517
2000	46.1	68.4	9.6	593	504

⑤ Debt Service Coverage

The high value of this ratio shows that there will be no problem in repaying the loans. One of the principle reasons is the high revenue of the project.

4-2 Evaluation by Discount Cash Flow (DCF)

In evaluating the financial profitability of the project, the financial rate of return (FRR) using the discount cash flow (DCF) method is determined using the same formula presented in Chapter XI, Section 5-1, converting IRR to FRR. It uses the earning increase after the completion of the project as the Benefit and the project construction cost and cost of purchasing the cargo handling equipment as the Cost. The profit before depreciation and before interest payment for each year is the operating profit, i.e., the benefit.

The total FRR of the project is 7.21% as shown in Table XII-7. The desirable level of FRR varies, depending on time and place, and the expectations of the lender and borrower. For borrowers, the interest rate paid on raised funds is the lower limit.

In this project, 36.3% of the overall construction cost (i.e. the foreign portion) is assumed to be raised by loans with a 4.75% interest rate. Thus, the FRR is required to exceed 1.72%, which is the weighted average interest rate for all the project funds. Judging from this point of view, this project can be regarded as feasible, since the FRR of the project is 7.21%, well above the weighted average interest rate.

However, if the re-investment for new facilities will be constructed in this project takes place without acceptance of any loans, this average interest rate will be raised up to 7.87% (1.72% plus 6.15% of the average depreciation rate).

4-3 Conclusion

As shown by the foregoing financial ratios which are based on data from the three financial statements, and by the FRR, there is no problem in balancing revenues and expenditures or in raising funds. With the new investments, the financial soundness of the port is easily secured and financial viability clearly demonstrated.

4-4 Financial Situation of Servicios Portuarios de Manzanillo, S.A. de C.V.

The financial situation of the entire commercial port of the port of Manzanillo is analyzed above. Here, the financial situation of "Servicios Portuarios de Manzanillo, S.A. de C.V." is calculated separately. The calculation method is the same as the method employed for determing the financial situation of the port as a whole. The financial statements (income statement and statement of source and application of funds) of "Servicios Portuarios de Manzanillo, S.A. de C.V." are presented in Appendix Tables M-12 and M-13.

From the above results, the operating revenue is sufficient to cover the operating expenditure, and it is possible to depreciate after paying the interest on the loan.

Table XII-7 Cost/Benefit and FRR

FRR (%) = 7.21

(Unit: '000 pesos)

Year	Cost	Benefit	Benefit – Cost	P. Cost	P. Benefit	P. Value
1985	194,875.00	0.00	-194,875.00	194,875.00	0.00	-194,875.00
1986	1,335,100.00	0.00	-1,335,100.00	1,245,370.00	0.00	-1,245,370.00
1987	1,128,800.00	95,638.00	-1,033,160.00	982,166.00	83,214.00	-898,952.00
1988	1,016,130.00	187,596.00	-828,532.00	824,713.00	152,257.00	-672,456.00
1989	2,628,310.00	229,913.00	-2,398,400.00	1,989,830.00	174,061.00	-1,815,769.00
1990	0.00	349,024.00	349,024.00	0.00	246,479.00	246,479.00
1991	0.00	395,368.00	395,368.00	0.00	260,441.00	260,441.00
1992	0.00	451,598.00	451,598.00	0.00	277,489.00	277,489.00
1993	0.00	487,940.00	487,940.00	0.00	279,669.00	279,669.00
1994	0.00	534,336.00	534,336.00	0.00	285,678.00	285,678.00
1995	0.00	580,771.00	580,771.00	0.00	289,636.00	289,636.00
1996	0.00	580,771.00	580,771.00	0.00	270,170.00	270,170.00
1997	0.00	580,771.00	580,771.00	0.00	252,013.00	252,013.00
1998	0.00	580,771.00	580,771.00	0.00	235,075.00	235,075.00
1999	0.00	580,771.00	580,771.00	0.00	219,276.00	219,276.00
2000	0.00	580,771.00	580,771.00	0.00	204,539.00	204,539.00
2001	0.00	580,771.00	580,771.00	0.00	190,792.00	190,792.00
2002	0.00	580,771.00	580,771.00	0.00	177,970.00	177,970.00
2003	0.00	580,771.00	580,771.00	0.00	166,009.00	166,009.00
2004	0.00	580,771.00	580,771.00	0.00	154,852.00	154,852.00
2005	0.00	580,771.00	580,771.00	0.00	144,444.00	144,444.00
2006	0.00	580,771.00	580,771.00	0.00	134,736.00	134,736.00
2007	0.00	580,771.00	580,771.00	0.00	125,681.00	125,681.00
2008	0.00	580,771.00	580,771.00	0.00	117,234.00	117,234.00
2009	0.00	580,771.00	580,771.00	0.00	109,355.00	109,355.00
2010	0.00	580,771.00	580,771.00	0.00	102,006.00	102,006.00
2011	0.00	580,771.00	580,771.00	0.00	95,150.00	95,150.00
2012	0.00	580,771.00	580,771.00	0.00	88,755.10	88,755.10
2013	0.00	580,771.00	580,771.00	0.00	82,790.10	82,790.10
2014	0.00	2,385,250.00	2,385,250.00	0.00	317,170.00	317,170.00
Total	6,303,210.00	16,151,300.00	9,848,110.00	5,236,954.00	5,236,941.00	-13.00

Note: P represents the present value.

4-5 Balance of Revenues and Expenditures of the Passenger Terminal

4-5-1 Calculating Conditions

This section examines the balance of revenues and expenditures of the passenger terminal which will be constructed in the outer port. The existing shed located on the old pier named "Muelle Fiscal" will be converted into the passenger terminal.

The necessary improvement work includes rehabilitation of the pier, provision of furniture and fixtures, and installation of an air conditioner. The rehabilitation work will probably take place after 1990.

4-5-2 Revenues

The revenues of the passenger terminal are the total of the tariffs paid by passenger vessels. Table XII-8 shows the tariff rates related to the revenue of the passenger terminal.

Table XII-8 Tariff Rates for the Passenger Terminal

Item	Application	Tariff (pesos)
1 Port Dues	Tariff x Tonnage (G/T)	24.0
2 Charge for Use of Quaywall	Tariff x Hours x Occupied length	4.6
3 Towage	Tariff per ship	10,000*(1)
4 Water Supply	Tariff x m^3	202.5
5 Concession Charge	Tarfff x m^2	7,500
6 Charge for Use of Passenger Terminal	*(2) 20% of charge for use of quaywall	

Note: *(1) This figure is the net income from towage work. The cost of towage is estimated as about 80% of gross income.
*(2) This charge is estimated based on the tariff for the passenger terminal at the port of Acapulco.

4-5-3 Expenditures

The expenditures related to the passenger terminal are estimated as follows:

① Personnel and general administration cost
"Servicios Portuarios de Manzanillo, S.A. de C.V." will operate the passenger terminal. The number of personnel required to run the terminal is estimated as 2 persons including a watchman.
The general administration cost is 20% of the personnel cost.

② Cost of water and electricity
The volume of water supply is estimated at 4,000 m^3/year for the terminal and 200 m^3 per ship. The cost of water per m^3 is 90 pesos for the terminal and 130 pesos for ships including the cost of pipe connection to the ships, based on the actual costs

at Manzanillo.

The total consumption of electricity of the terminal is estimated at 700,000 KWH per year. The actual cost is 7 pesos per KWH.

③ Maintenance cost

The maintenance cost of the facilities is assumed as a certain proportion (2% for building and fixed structures, 5% for machines) of the construction or purchase cost of each facility.

④ Depreciation expense

The service life and depreciation rate of each facility are listed in Table XII-9.

Table XII-9 Life Cycle and Depreciation Rate

Facility	Life Cycle (Years)	Depreciation Rate (per Year)
Pier	40	0.025
Building	25	0.04
Air Conditioner and Other Fixtures	15	0.07

The investments for the passenger terminal are listed in Table XII-10.

Table XII-10 Investments for the Passenger Terminal

Item	Construction Year	Cost ('000 pesos)
Existing Facilities		
Pier	1952	432,000
Shed	1952	281,460
New Investment		
Rehabilitation of Pier		40,000
Furniture and Fixtures		81,300
Air Conditioner		31,700

4-5-4 Calculation Result

The result of the calculation on the balance of the revenues and expenditures of the passenger terminal is shown in Table XII-11. The calculation is based on the number of calling vessels.

Judging from Table XII-11, revenues and expenditure will be balanced when the number of calling vessels reaches 95.

Table XII-11 Balance of Revenues and Expenditures

(Unit: '000 pesos)

Number of Calling Vessels	50	60	70	80	90	100	110	120	130	140
Revenues										
· Port Dues	24,000	28,800	33,600	38,400	43,200	48,000	52,800	57,600	62,400	67,200
· Charge for Use of Quaywall	777	932	1,088	1,243	1,398	1,554	1,709	1,864	2,020	2,176
· Towage	500	600	700	800	900	1,000	1,100	1,200	1,300	1,400
· Water Supply	1,976	2,371	2,766	3,161	3,556	3,951	4,346	4,741	5,137	5,532
· Concession Charge	6,773	6,773	6,773	6,773	6,773	6,773	6,773	6,773	6,773	6,773
· Charge for Use of Passenger Terminal	155	187	218	249	280	311	342	373	404	435
Total	34,181	39,663	45,145	50,626	56,107	61,589	67,070	72,551	78,034	83,516
Expenditures										
· Personnel and General Administration Cost	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700
· Water and Electricity	6,560	6,820	7,080	7,340	7,600	7,860	8,120	8,380	8,640	8,900
· Maintenance Cost	18,280	18,280	18,280	18,280	18,280	18,280	18,280	18,280	18,280	18,280
· Depriciation Expense	28,530	28,530	28,530	28,530	28,530	28,530	28,530	28,530	28,530	28,530
Total	57,070	57,330	57,590	57,850	58,110	58,370	58,630	58,890	59,150	59,410
Net Income	-22,889	-17,667	-12,445	-7,224	-2,003	3,219	8,440	13,661	18,884	24,106

5. Sensitivity Analysis

5-1 Identification of Cases

The sensitivity analysis is conducted assuming that the annual GDP growth rate after 1986 will be 4.7%.

5-2 Result

The financial statements (income statement, and statement of source and application of funds) and the FRR are shown in Appendix Table M-14 and M-15, and Table XII-12, calculated on the assumption of a 4.7% GDP growth rate.

From the above results, the operating revenue is sufficient to cover the operating expenditure, and it is possible to show a net profit after depreciation and after paying the interest on the loans. Since funds are still sufficient after beginning the repayment of the loan, it can be said that the project is financially sound. In addition, the Financial Rate of Return (FRR) is 6.48%, so it can be said that the project is viable from a financial point of view.

Table XII-12 Cost/Benefit and FRR – Alternative Case

FRR (%) = 6.48

(Unit: '000 pesos)

Year	Cost	Benefit	Benefit – Cost	P. Cost	P. Benefit	P. Value
1985	194,875.00	0.00	-194,875.00	194,875.00	0.00	-194,875.00
1986	1,335,100.00	0.00	-1,335,100.00	1,253,880.00	0.00	-1,253,880.00
1987	1,128,800.00	77,907.00	-1,050,890.00	995,644.00	68,717.00	-926,927.00
1988	1,016,130.00	152,040.00	-864,090.00	841,743.00	125,947.00	-715,796.00
1989	2,628,310.00	176,656.00	-2,451,650.00	2,044,800.00	137,437.00	-1,907,363.00
1990	0.00	268,173.00	268,173.00	0.00	195,944.00	195,944.00
1991	0.00	313,483.00	313,483.00	0.00	215,117.00	215,117.00
1992	0.00	344,668.00	344,668.00	0.00	222,129.00	222,129.00
1993	0.00	383,978.00	383,978.00	0.00	232,410.00	232,410.00
1994	0.00	419,181.00	419,181.00	0.00	238,283.00	238,283.00
1995	0.00	454,464.00	454,461.00	0.00	242,624.00	242,624.00
1996	0.00	489,666.00	489,666.00	0.00	245,515.00	245,515.00
1997	0.00	524,977.00	524,977.00	0.00	247,208.00	247,208.00
1998	0.00	560,161.00	560,161.00	0.00	247,730.00	247,730.00
1999	0.00	605,472.00	605,472.00	0.00	251,480.00	251,480.00
2000	0.00	605,472.00	605,472.00	0.00	236,182.00	236,182.00
2001	0.00	605,472.00	605,472.00	0.00	221,814.00	221,814.00
2002	0.00	605,472.00	605,472.00	0.00	208,321.00	208,321.00
2003	0.00	605,472.00	605,472.00	0.00	195,649.00	195,649.00
2004	0.00	605,472.00	605,472.00	0.00	183,747.00	183,747.00
2005	0.00	605,472.00	605,472.00	0.00	172,569.00	172,569.00
2006	0.00	605,472.00	605,472.00	0.00	162,072.00	162,072.00
2007	0.00	605,472.00	605,472.00	0.00	152,213.00	152,213.00
2008	0.00	605,472.00	605,472.00	0.00	142,953.00	142,953.00
2009	0.00	605,472.00	605,472.00	0.00	134,257.00	134,257.00
2010	0.00	605,472.00	605,472.00	0.00	126,090.00	126,090.00
2011	0.00	605,472.00	605,472.00	0.00	118,420.00	118,420.00
2012	0.00	605,472.00	605,472.00	0.00	111,216.00	111,216.00
2013	0.00	605,472.00	605,472.00	0.00	104,451.00	104,451.00
2014	0.00	2,409,950.00	2,409,950.00	0.00	390,454.00	390,454.00
Total	6,303,220.00	15,657,400.00	9,354,170.00	5,330,942.00	5,330,949.00	7.00

Note: P represents the present value.

APPENDIX

APPENDIX

1. Detailed Soil Profile at the Port of Manzanillo

Soil conditions of the San Pedrito and the Tapeixtles Lagoons in the inner port are discussed in this section. Samples from 138 points of boring have been collected to date. However the locations of 5 points cannot be confirmed and there are 7 points which can be classified into individual zones but their locations within these zones cannot be confirmed. The soil profiles of sections ① to ⑫ (See Fig. M-1) are shown in Fig. M-2 to M-13 respectively.

1-1 Soil Profiles of Longitudinal Sections

The soil profiles of the north-south longitudinal sections in the San Pedrito Lagoon are shown in Fig. M-2 to M-5, and that of the Tapeixtles Lagoon is shown in Fig. M-11.

As shown in Fig. M-2, the soil profile of section ① was obtained from borings made in 1983. The data show that the maximum depth of water is 14 m at point M 16 and the depth decreases to the north and south. The water in section ① is deeper than in other sections, probably because it may have been dredged for the new wharves that are currently under construction. The maximum depth of the soft organic soil or clay is 17 m at M 16, and decreases to the north and south too.

The depth of the fine and stiff sand layer between M 16 and M 31 is from 11 m to 15 m, but in the northern portion of Zone B between M 34 and M 40 this sand layer isn't thick and there is a slightly stiff clay layer beneath it.

On the other hand, in the southern portion between M 4 and M 7, stiff sandy silt, sandy clay and sandy soil with gravel layers lie directly beneath the soft layer.

As shown in Fig. M-3 to M-5, sections ② to ④ have similar soil distribution patterns. These data were obtained from borings made in 1972. From the ground surface down they consist of soft organic soil or clay of about 10 m in thickness, followed by a sand layer and then a complex layer of sandy, silty and clayey soils. The outstanding feature in these sections is that the thickness of the sand layer, which is one of the most important layers as the bearing stratum for foundations, changes from 12 m at S 7, S 8 and S 9 to 1.6 m at S 45, and decreases to the northeast. Furthermore, the thickness of the sand layer can not be obtained with the exception of borings S 5, 7, 8, 9, 45 and 46, because the borings were shallow, stopping in the middle of this sand layer, about 20 m deep.

As shown in Fig. M-11, the soil profile of section ⑩ in the Tapeixtles Lagoon has a similar pattern to that of the San Pedrito Lagoon. From the ground surface down it conists of soft organic soil or clay of about 10 m in depth.

Unfortunately, the borings were shallow, stopping from 12 m to 17 m deep, and the depth of the bearing stratum can't be confirmed clearly.

1-2 Soil Profiles of Transverse Sections

The soil profiles of the east-west, transverse sections of the San Pedrito Lagoon are shown in Fig. M-6 to M-10 and those in the Tapeixtles Lagoon are shown in Fig. M-12 and M-13.

As shown in Fig. M-6 to M-9, the layer of soft organic soil or clay is thicker in the eastern part of these transverse sections (within longitudinal section ①), and in the northeast area with the exception Zone F, a slightly stiff sandy and complex layers underlie the fine and stiff sand layer.

Furthermore, the fine and stiff sand layer appears to be too thin to act as the bearing stratum for foundations in this area.

As shown in Fig. M-12 and M-13, the transverse sections in the Tapeixtles Lagoon have a similar pattern. However, the borings were too shallow to confirm the depth of the bearing stratum.

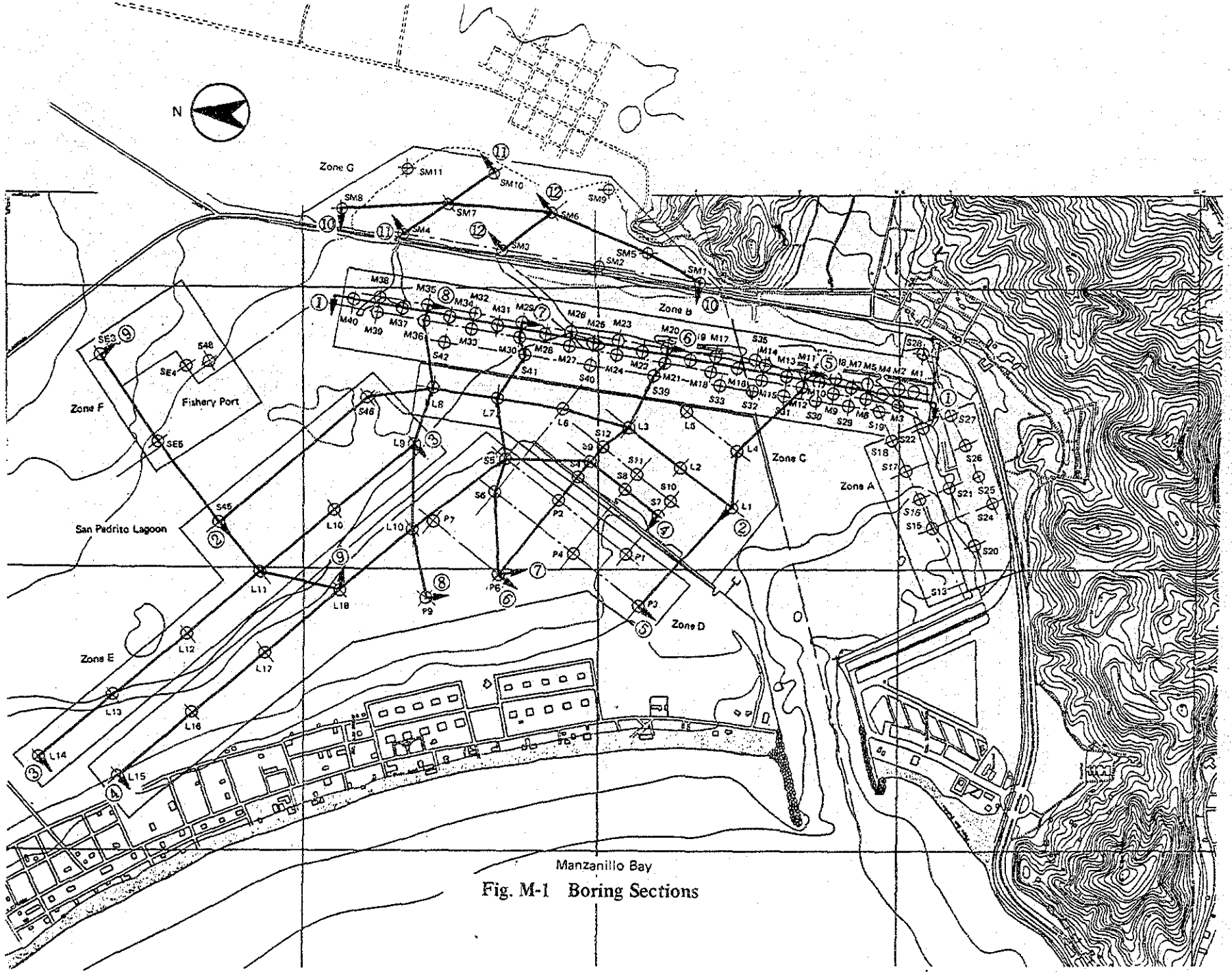


Fig. M-1 Boring Sections

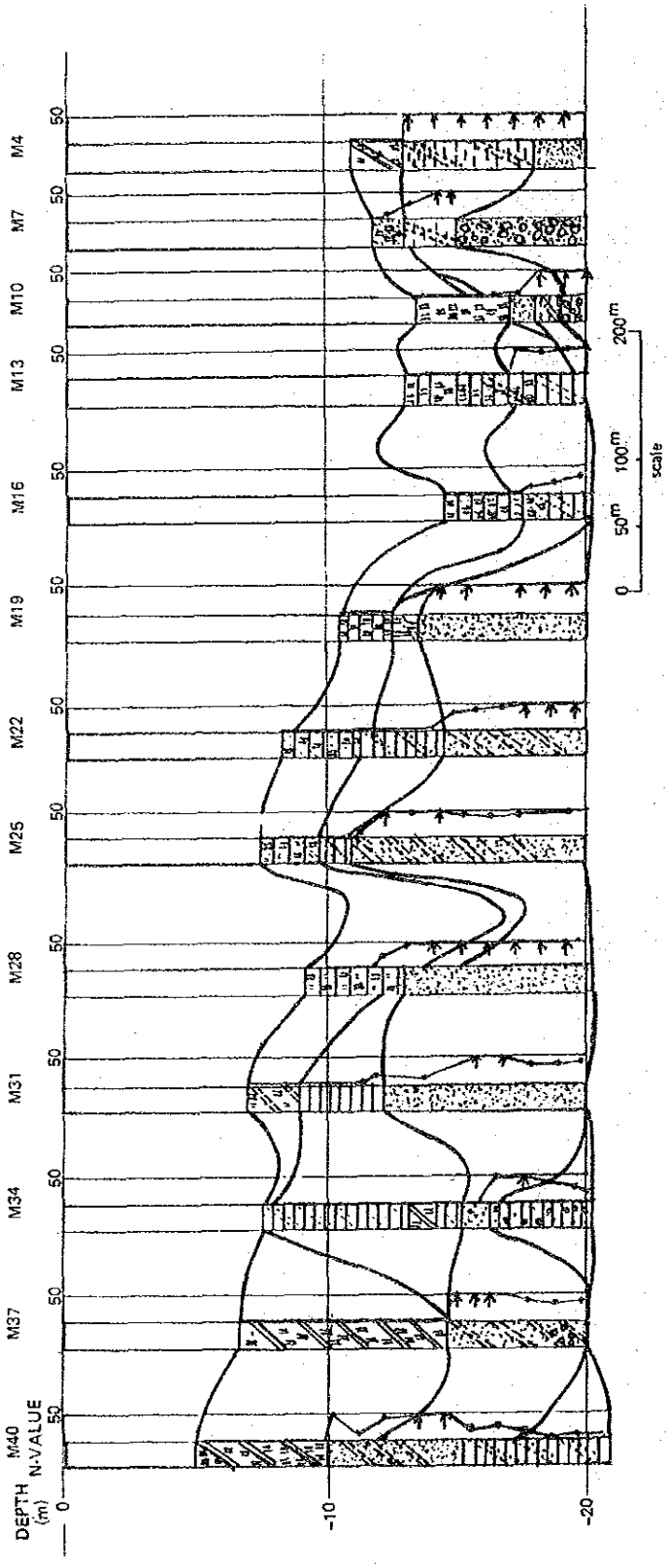


Fig. M-2 Soil Profile, Section ① - ①

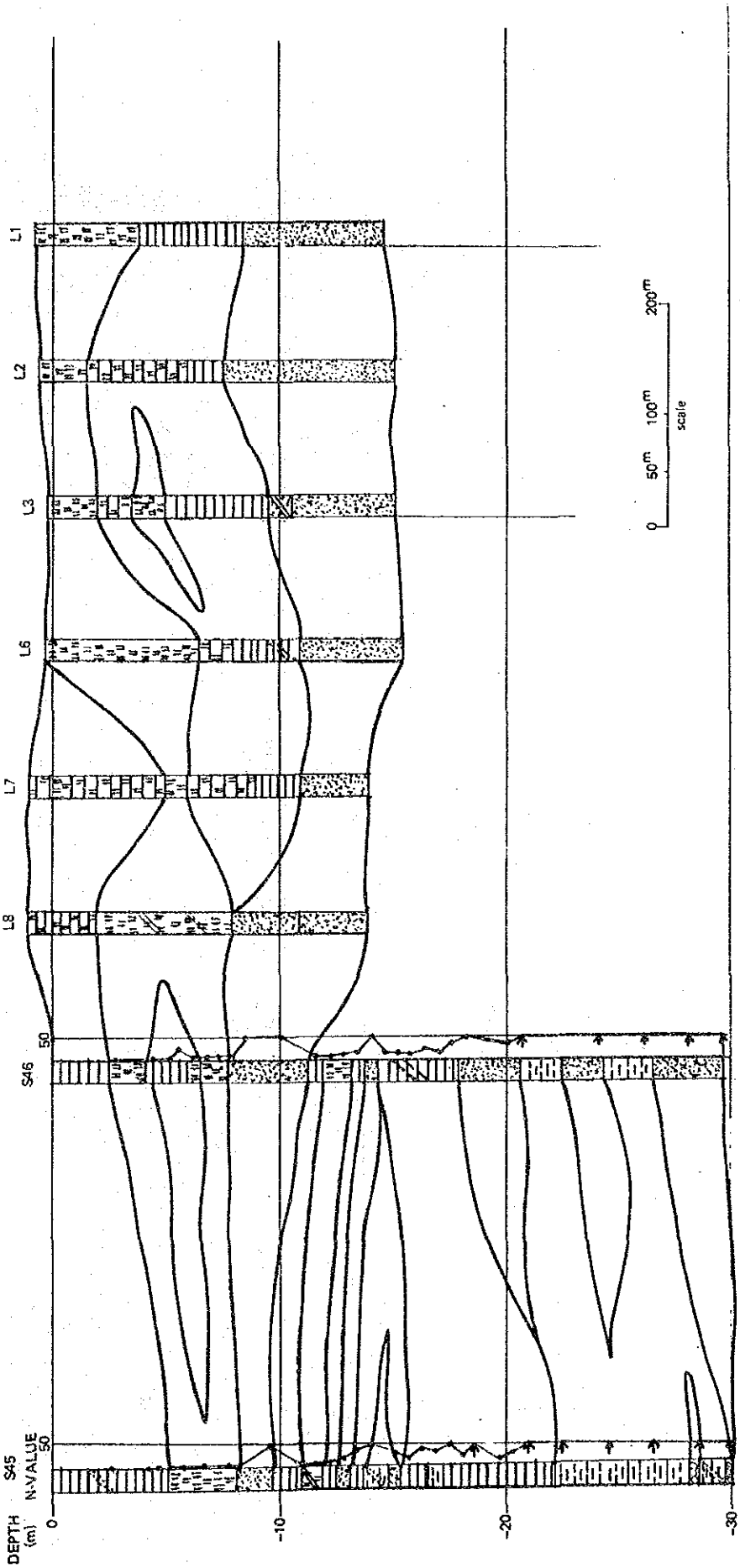


Fig. M-3 Soil Profile, Section ② - ②

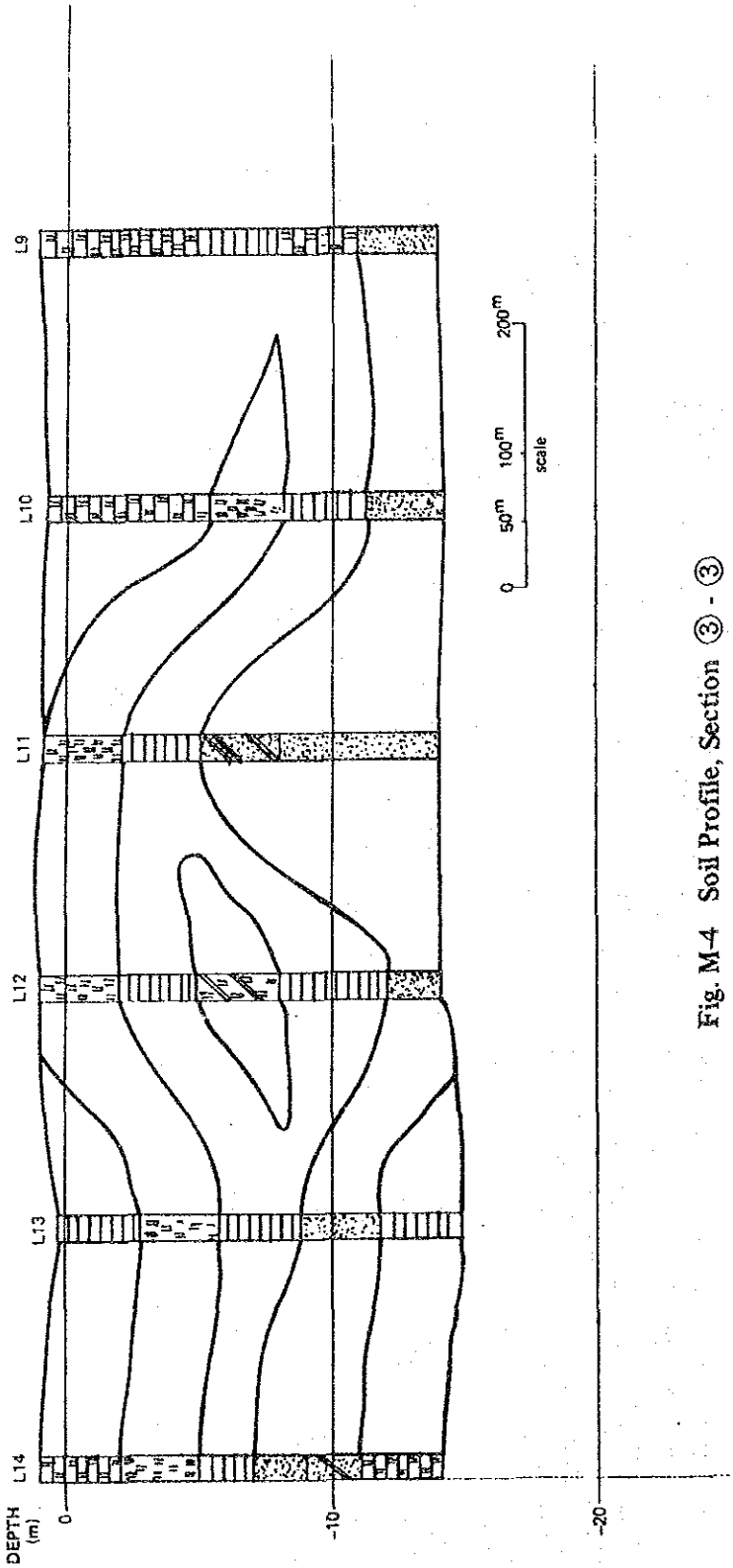


Fig. M-4 Soil Profile, Section ③ - ③

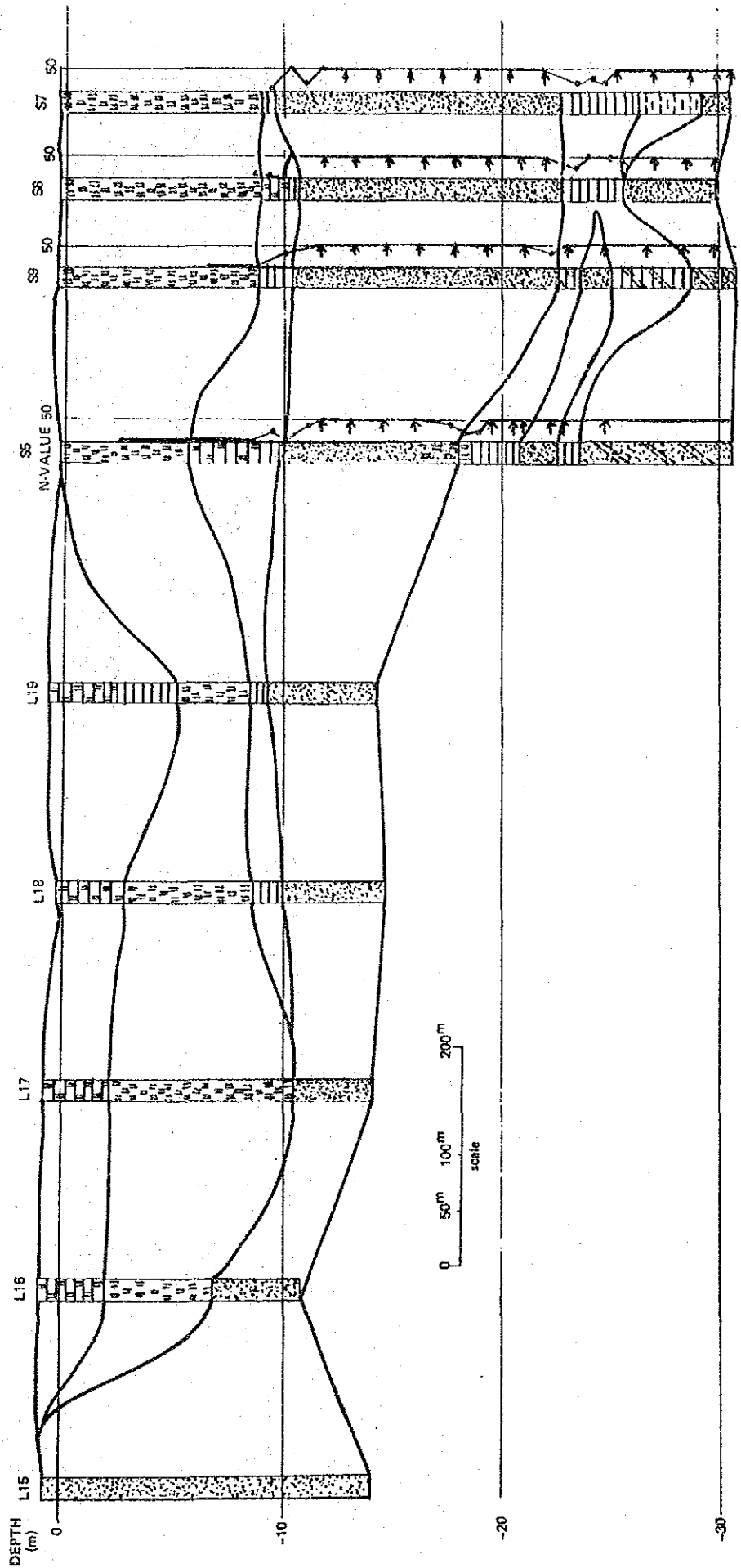


Fig. M-5 Soil Profile, Section ④ - ④

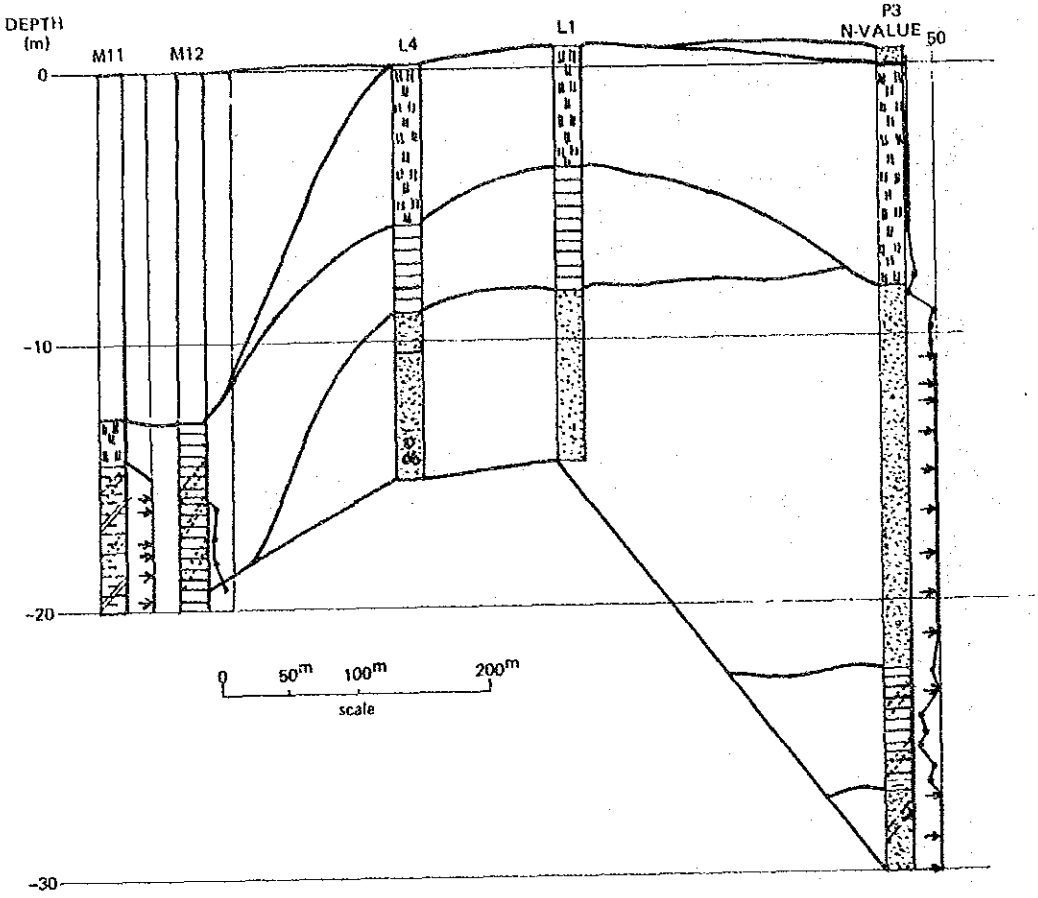


Fig. M-6 Soil Profile, Section ⑤ - ⑤

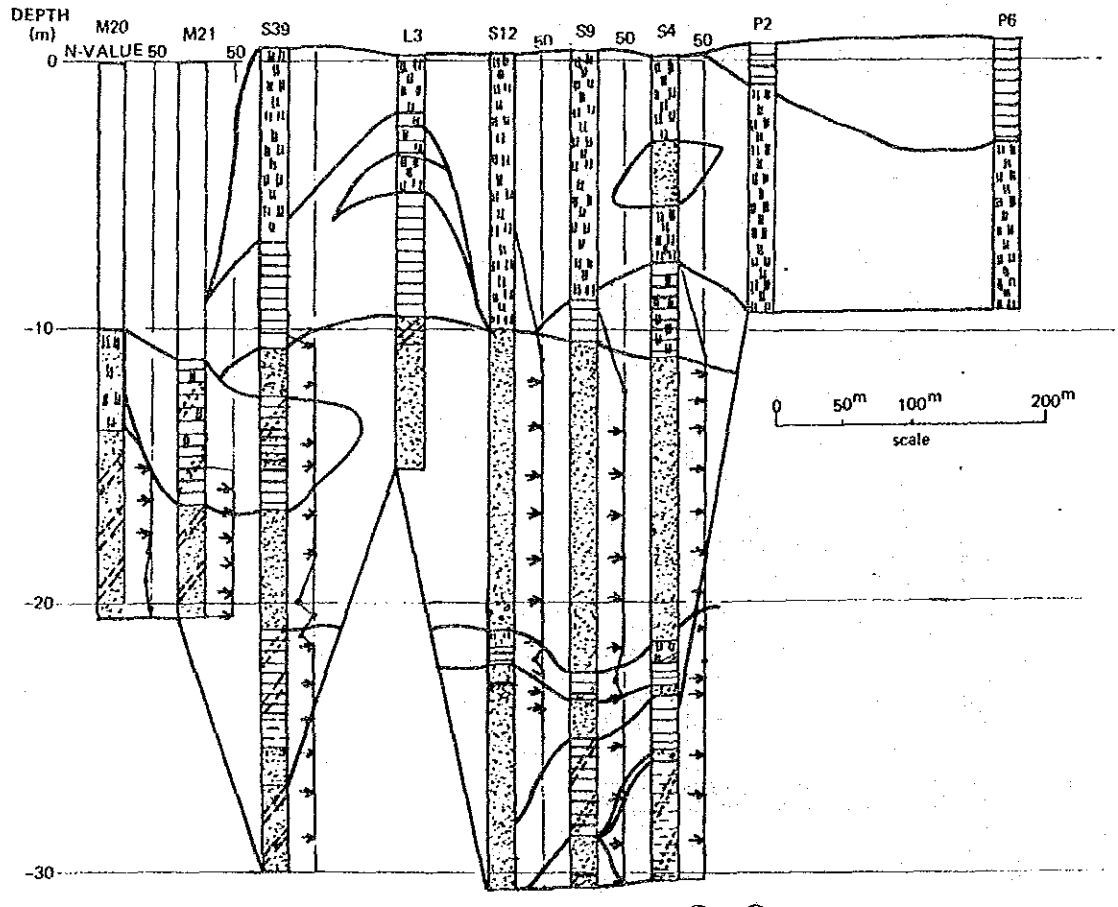


Fig. M-7 Soil Profile, Section ⑥ - ⑥

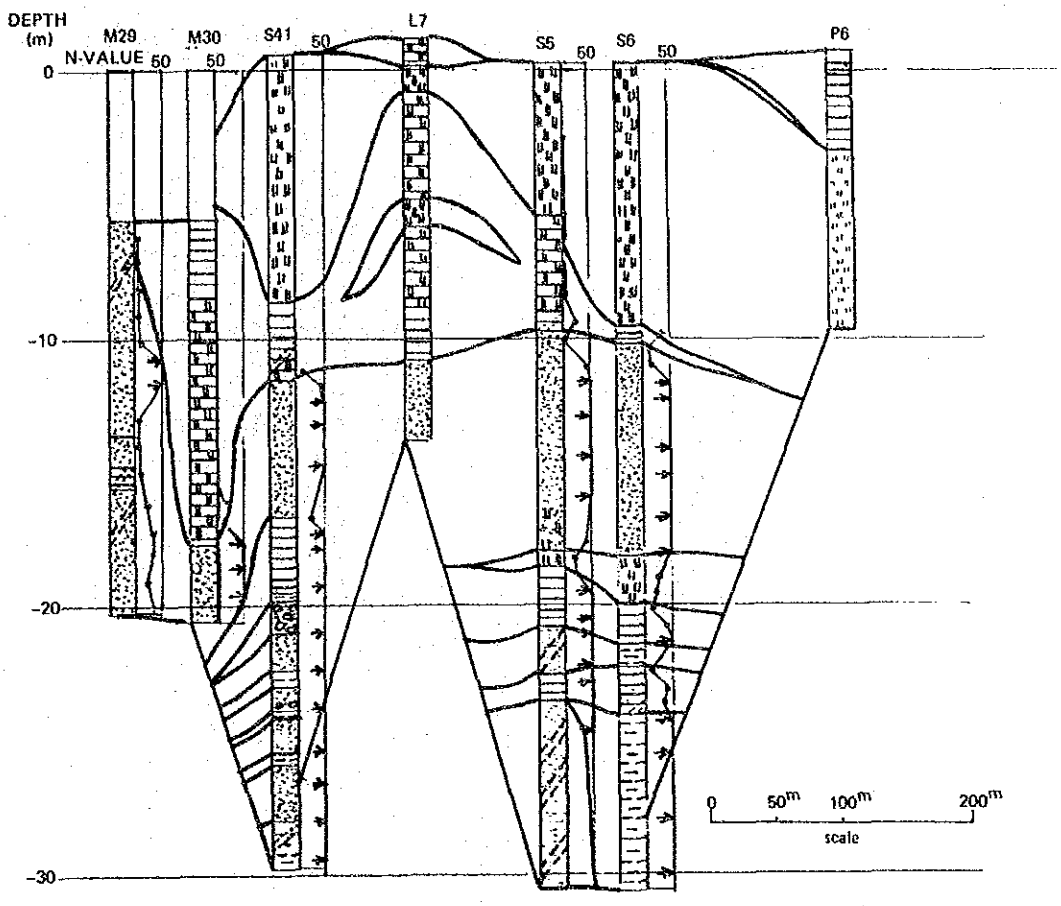


Fig. M-8 Soil Profile, Section ⑦ - ⑦

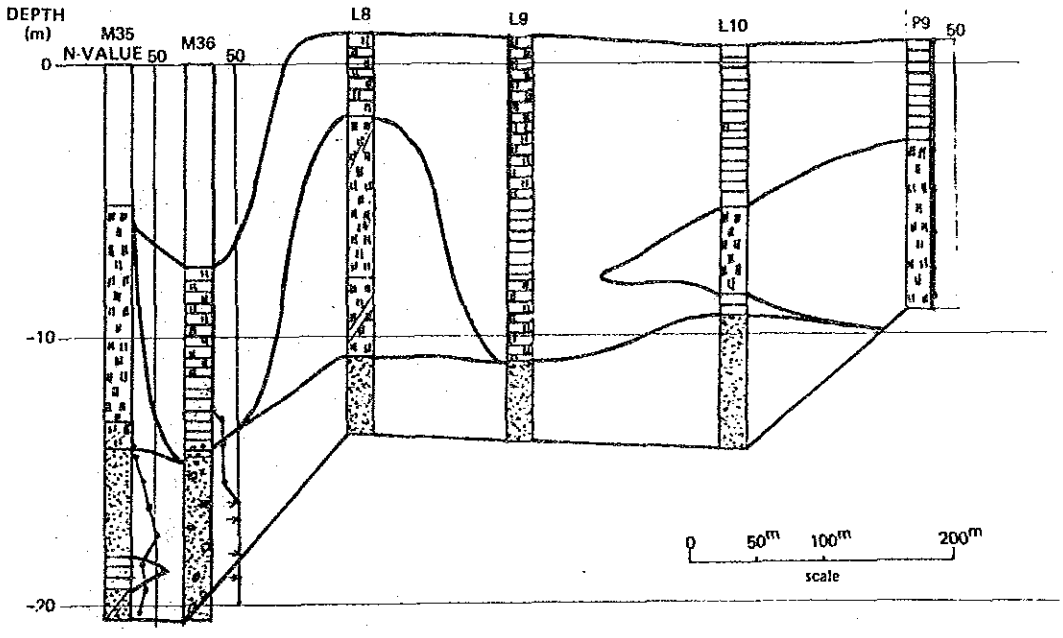


Fig. M-9 Soil Profile, Section ⑧ - ⑧

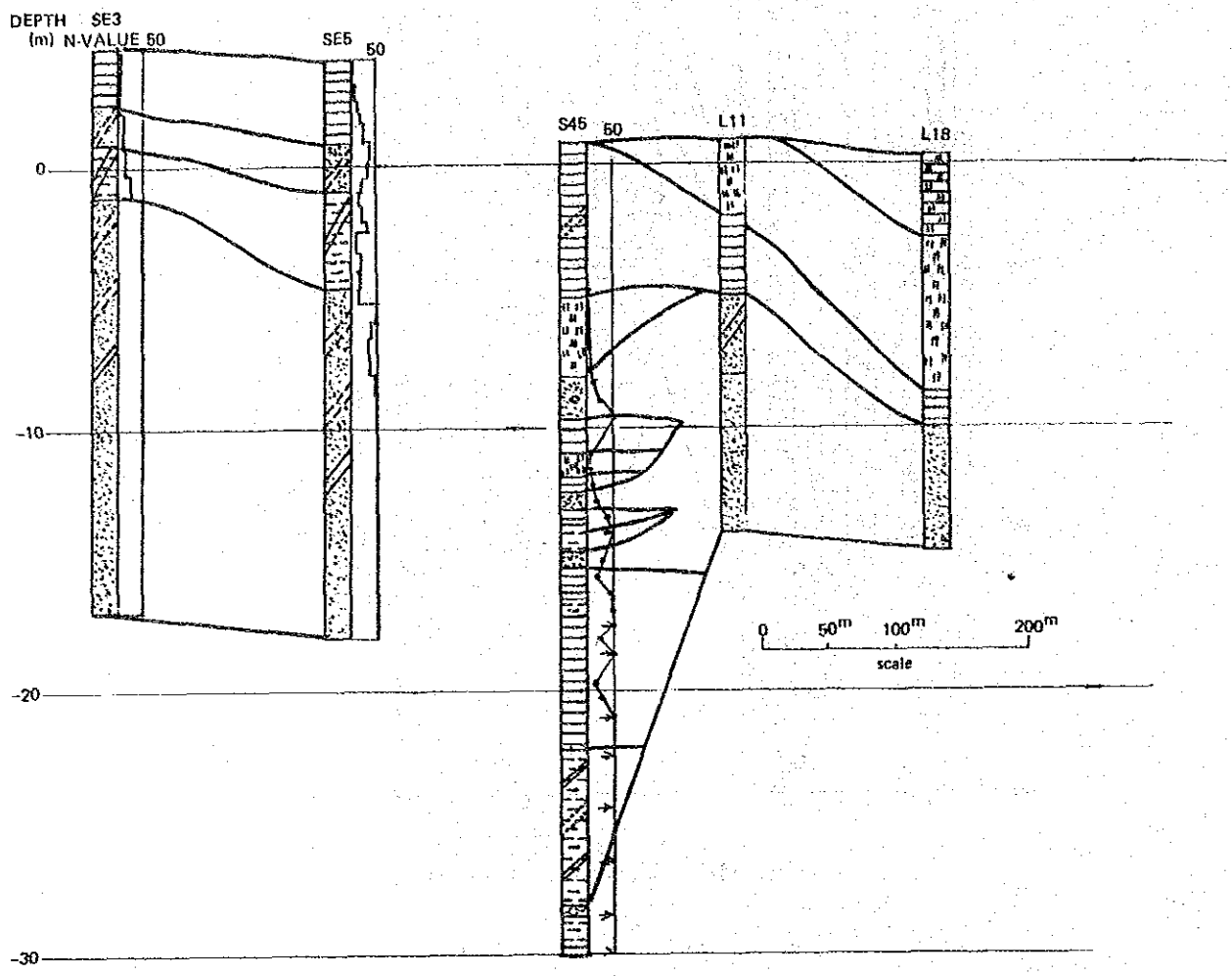


Fig. M-10 Soil Profile, Section ⑨ - ⑨

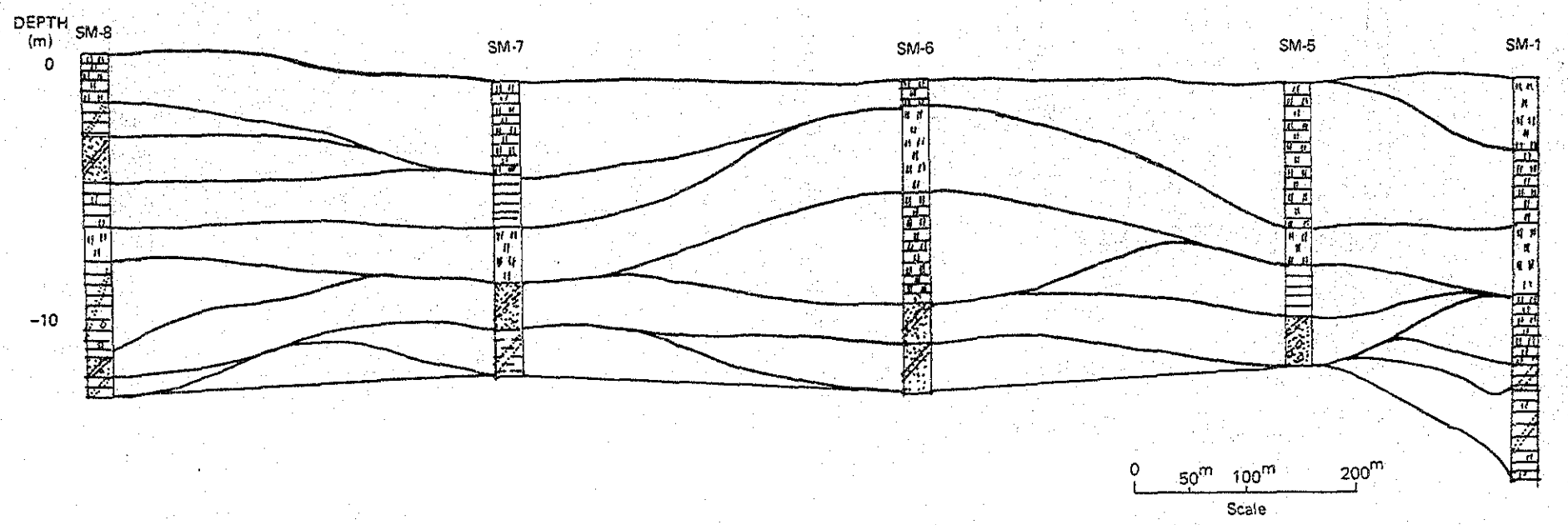


Fig. M-11 Soil Profile, Section ⑩ - ⑩

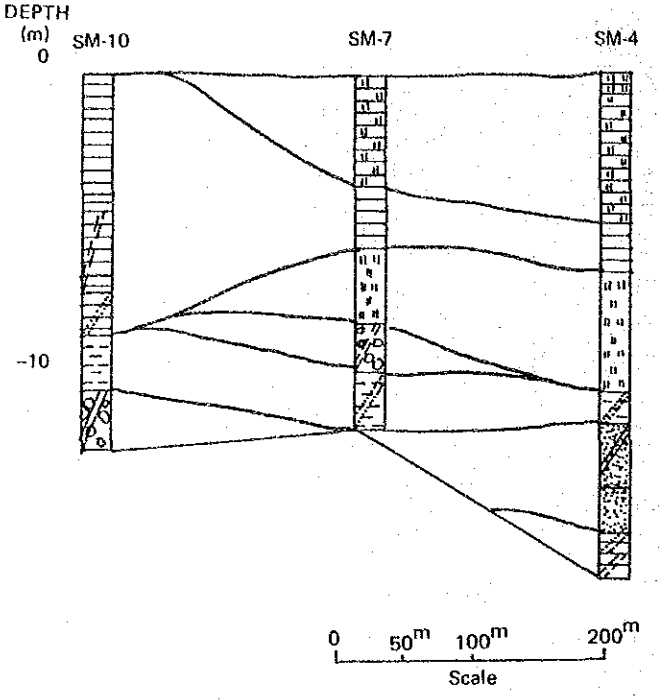


Fig. M-12 Soil Profile, Section ⑪ - ⑪

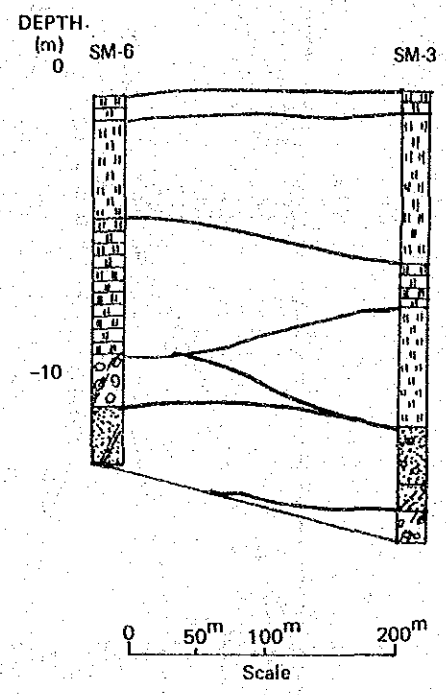


Fig. M-13 Soil Profile, Section ⑫ - ⑫

2. Construction and Cost Estimate for the Master Plan

2-1 Construction Quantities

The construction quantities of the fishery port facilities are listed in Table M-1.

Table M-1 Construction Quantity (Fishery Port)

Facility		Unit	Quantity	Remarks
Item	Sub Item			
1. Dredging	(1) -7m Anchorage	m^3	475,000	—
	(2) -4m Anchorage	m^3	275,000	—
2. Quays	(1) -7m Quay	m	970	RC Pile, RC Sheet-pile
	(2) -4m Quay	m	800	RC Pile, RC Sheet-pile
3. Land and Road	(1) Wharf Lot	m^2	80,000	Asphalt Pavement
	(2) Road	m	1,500	Asphalt Pavement, Lighting Poles (75 sets), Lights (150 sets)
	(3) Fishery Industrial Lot	m^2	240,000	

2-2 Construction Schedule

The construction schedules of the fishery port and the outer port facilities are shown in Tables M-2 and M-3. In these table, the construction schedule of the fishery port facilities is only divided into before and after 1990. As for the construction schedule of the outer port facilities, only the schedule from the starting year is shown.

Table M-2 Construction Schedule (Fishery Port)

Facility		Unit	Quantity	Construction Year	
Item	Sub Item			1985 ~ 1990	1991 ~ 2000
1. Dredging	(1) -7m Anchorage	m^3	475,000		
	(2) -4m Anchorage	m^3	275,000		
2. Quays	(1) -7m Quay	m	970		
	(2) -4m Quay	m	800		
3. Land and Road	(1) Wharf Lot	m^2	80,000	(40,000 m^2)	(40,000 m^2)
	(2) Road	m	1,500	(700 m)	(800 m)
	(3) Fishery Industrial Lot	m^2	240,000		

Table M-3 Construction Schedule (Outer Port)

Facilities		Unit	Quantity	Construction Year					
Item	Sub Item			1	2	3	4	5	6
1. Terminal	(1) Wharf Repair	set	1	———					
	(2) Terminal	set	1	———					
2. Touristic Facility	(1) Seawall	m²	1,400	———	———	———	———	———	
	(2) Green Area	m²	7,500				———	———	———
	(3) Parking Area	m²	1,920					———	———
	(4) Launch Mooring	m	15					———	———
	(5) Slipway	m	30					———	———

2-3 Cost Estimate

The results of the cost estimations for the fishery port and the outer port facilities are shown in Tables M-4 and M-5.

Table M-4 Construction Cost (Fishery Port)

Facility		Unit	Quantity	Construction Cost ('000 pesos)		
Item	Sub Item			Total	Foreign Portion	Local Portion
1. Dredging	(1) -7m Anchorage	m^3	475,000	303,000	100,000	203,000
	(2) -4m Anchorage	m^3	275,000	178,000	60,000	118,000
2. Quays	(1) -7m Quay	m	970	640,000	–	640,000
	(2) -4m Quay	m	800	440,000	–	440,000
3. Land and Road	(1) Wharf Lot	m^2	80,000	118,000	–	118,000
	(2) Road	m	1,500	103,000	30,000	73,000
	(3) Fishery Industrial Lot	m^2	240,000	38,000	–	38,000
Total				1,820,000	190,000	1,630,000
Tax				139,500	–	139,500
Grand Total				1,959,500	190,000	1,769,500

Table M-5 Construction Cost (Outer Port)

Facilities		Unit	Quantity	Construction Cost ('000 pesos)		
Item	Sub Item			Total	Foreign Portion	Local Portion
1. Terminal	(1) Wharf Repair	set	1	40,000	6,000	34,000
	(2) Terminal	set	1	113,000	53,000	60,000
2. Touristic Facility	(1) Seawall	m	1,140	291,000	–	291,000
	(2) Green Area	m^2	7,500	55,000	–	55,000
	(3) Parking Area	m^2	1,920	5,000	–	5,000
	(4) Launch Mooring	m	15	11,000	–	11,000
	(5) Slipway	m	30	15,000	–	15,000
Total				530,000	59,000	471,000
Tax				46,000	–	46,000
Grand Total				576,000	59,000	517,000

3. Construction and Cost Estimate for the Short-term Plan

3-1 Construction Quantity

Construction quantity for the fishery port is shown in Table M-6.

Table M-6 Port Facilities and Construction Quantity (Fishery Port)

Facilities		Unit	Quantity	Reamrks
Item	Sub Item			
1. Dredging	(1) Anchorage	m^3	475,000	–
2. Quays	(1) -7m Quay	m	840	RC Pile, RC Sheet-pile
	(2) -4m Quay	m	80	RC Pile, RC Sheet-pile
3. Land and Road	(1) Wharf Lot	m^2	40,000	Asphalt Pavement, Lighting Pole (35
	(2) Road	m	700	Asphalt Pavement, Lighting Pole (35 set), Light (70 set)

3-2 Cost Estimate

The result of the cost estimation for the fishery port facilities is shown in Table M-7.

Table M-7 Construction Cost (Fishery Port)

Facility		Unit	Quantity	Construction Cost ('000 pesos)		
Item	Sub Item			Total	Foreign Portion	Local Portion
1. Dredging	(1) Anchorage	m^3	475,000	305,000	101,000	204,000
2. Quays	(1) -7m Quay	m	840	554,000	–	554,000
	(2) -4m Quay	m	80	44,000	–	44,000
3. Land and Road	(1) Wharf Lot	m^2	40,000	59,000	–	59,000
	(2) Road	m	700	19,000	6,000	13,000
Total				981,000	107,000	874,000
Tax				72,000	–	72,000
Grand Total				1,053,000	107,000	946,000

4. Financial Statements for Financial Analysis

4-1 Financial Statements in the Original Case

The fired assets schedule, the income statement, the statement of source and application of funds, and the balance sheet in the original case are indicated in Table M-8, M-9, M-10 and M-11.

4-2 Financial Statements of "Servicious Portuaries de Manzanillo, S.A. de C.V."

The income statement, and the statement of source and application of funds of "Servicious Portuaries de Manzanillo, S.A. de C.V." are presented in Table M-12 and M-13.

4-3 Financial Statements in the Alternative Case

The income statement, and the statement of source and application of funds in the alternative case are shown in Table M-14 and M-15.

Table M-8 Fixed Assets Schedule

(Unit: '000,000 pesos)

Item	1985	1986	1987	1988	1989	1990
Fixed Assets at Beginning of Year	4,830	5,562	6,638	7,519	8,271	10,616
Non Depreciable Assets (Land)	0	0	0	0	170	170
Depreciable Assets	7,980	8,319	8,769	9,545	10,158	11,791
Depreciation	3,151	3,403	3,662	3,910	4,174	4,457
Written down Value	4,830	4,917	5,108	5,636	5,985	7,334
Construction in Process	0	645	1,530	1,883	2,116	3,112
Investment	984	1,335	1,129	1,016	2,628	
Existing Facilities	789					
New Facilities	195	1,335	1,129	1,016	2,628	
Depreciation	252	259	248	264	283	336
Fixed Assets at End of Year	5,562	6,638	7,519	8,271	10,616	10,280
Non Depreciable Assets (Land)	0	0	0	170	170	187
Depreciable Assets	8,319	8,769	9,545	10,158	11,791	14,886
Depreciation	3,403	3,662	3,910	4,174	4,457	4,793
Written down Value	4,917	5,108	5,636	5,985	7,334	10,093
Construction in Process	645	1,530	1,883	2,116	3,112	0

Item	1991	1992	1993	1994	1995	1996
Fixed Assets at Begining of Year	10,280	9,627	8,975	8,334	7,701	7,081
Non Depreciable Assets (Land)	187	187	187	187	187	187
Depreciable Assets	14,886	14,886	14,886	14,886	14,886	14,886
Depreciation	4,793	5,446	6,098	6,739	7,372	7,992
Written down Value	10,093	9,440	8,788	8,147	7,514	6,894
Construction in Process						
Investment						
Existing Facilities						
New Facilities						
Depreciation	653	652	641	633	620	408
Fixed Assets at End of Year	9,627	8,975	8,334	7,701	7,081	6,673
Non Depreciable Assets (Land)	187	187	187	187	187	187
Depreciable Assets	14,886	14,886	14,886	14,886	14,886	14,886
Depreciation	5,446	6,098	6,739	7,372	7,992	8,400
Written down Value	9,440	8,788	8,147	7,514	6,894	6,486
Construction in Process						

Item	1997	1998	1999	2000	2001	2002
Fixed Assets at Beginning of Year	6,673	6,265	5,857	5,457	5,057	4,770
Non Depreciable Assets (Land)	187	187	187	187	187	187
Depreciable Assets	14,886	14,886	14,886	14,886	14,886	14,886
Depreciation	8,400	8,808	9,216	9,616	10,016	10,303
Written down Value	6,486	6,078	5,670	5,270	4,870	4,583
Construction in Process						
Investment						
Existing Facilities						
New Facilities						
Depreciation	408	408	400	400	287	257
Fixed Assets at End of Year	6,265	5,857	5,457	5,057	4,770	4,513
Non Depreciable Assets (Land)	187	187	187	187	187	187
Depreciable Assets	14,886	14,886	14,886	14,886	14,886	14,886
Depreciation	8,808	9,216	9,616	10,016	10,303	10,560
Written down Value	6,078	5,670	5,270	4,870	4,583	4,326
Construction in Process						

Item	2003	2004	2005	2006	2007	2008
Fixed Assets at Beginning of Year	4,513	4,257	4,000	3,743	3,487	3,230
Non Depreciable Assets (Land)	187	187	187	187	187	187
Depreciable Assets	14,886	14,887	14,887	14,887	14,888	14,888
Depreciation	10,560	10,817	11,074	11,331	11,588	11,845
Written down Value	4,326	4,070	3,813	3,556	3,300	3,043
Construction in Process						
Investment						
Existing Facilities						
New Facilities						
Depreciation	257	257	257	257	257	229
Fixed Assets at End of Year	4,257	4,000	3,743	3,487	3,230	3,001
Non Depreciable Assets (Land)	187	187	187	187	187	187
Depreciable Assets	14,887	14,887	14,887	14,887	14,888	14,888
Depreciation	10,817	11,074	11,331	11,588	11,845	12,074
Written down Value	4,070	3,813	3,556	3,300	3,043	2,814
Construction in Process						

Item	2009	2010	2011	2012	2013	2014
Fixed Assets at Beginning of Year	3,001	2,773	2,564	2,374	2,184	1,994
Non Depreciable Assets (Land)	187	187	187	187	187	187
Depreciable Assets	14,888	14,889	14,889	14,889	14,889	14,889
Depreciation	12,074	12,303	12,512	12,702	12,892	13,082
Written down Value	2,814	2,586	2,377	2,187	1,997	1,807
Construction in Process						
Investment						
Existing Facilities						
New Facilities						
Depreciation	229	209	190	190	190	190
Fixed Assets at End of Year	2,773	2,564	2,374	2,184	1,994	1,804
Non Depreciable Assets (Land)	187	187	187	187	187	187
Depreciable Assets	14,889	14,889	14,889	14,889	14,889	14,889
Depreciation	12,303	12,512	12,702	12,892	13,082	13,272
Written down Value	2,586	2,377	2,187	1,997	1,807	1,617
Construction in Process						

Table M-9 Income Statement

(Unit: '000 pesos)

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993
OPERATING REVENUES									
CHARGES FOR FACILITIES									
LOADING & UNLOADING CHARGE	196,467	220,117	243,900	267,561	291,350	315,003	325,667	335,194	346,859
CARGO HANDLING CHARGE	423,479	479,616	535,753	371,891	648,028	704,165	727,979	751,794	775,608
CHARGE FOR USE OF STORAGE	65,918	82,167	98,416	114,665	130,914	147,163	152,192	157,222	162,251
OTHER (NATIONAL)	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000
WATER SUPPLY	11,421	12,792	14,162	15,571	16,941	18,312	18,730	19,149	19,568
TOWAGE	15,060	16,867	18,674	20,532	22,339	24,146	24,698	25,251	25,803
PORT DUES (FOREIGN TRADE)	88,523	100,844	113,146	125,467	137,770	150,091	154,919	159,748	164,576
PORT DUES (DOMESTIC TRADE)	2,760	2,657	2,548	2,447	2,337	2,236	2,392	2,539	2,696
FUMIGATION & OTHER	43,350	45,210	47,070	48,930	50,790	52,650	52,110	51,570	51,030
OTHER (COMPANY)	550	550	550	550	550	550	550	550	550
CHARGE FOR USE OF WHARF (EX)	2,265	2,820	3,375	3,945	4,500	5,055	5,535	6,000	6,400
CHARGE FOR USE OF WHARF (IM)	31,980	36,300	40,620	44,970	49,290	53,610	54,480	55,380	56,250
CHARGE FOR USE OF WHARF (DM)	3,300	3,180	3,060	2,940	2,820	2,700	2,925	3,165	3,390
CHARGE FOR USE OF QUAYWALL	35,494	36,554	37,614	38,673	39,733	40,793	40,638	40,484	40,329
TOTAL (OPERATING REVENUES)	966,566	1,085,677	1,204,896	1,324,141	1,433,357	1,562,470	1,608,814	1,655,044	1,701,386
OPERATING EXPENSES									
PERSONNEL & OTHER (NATIONAL)	124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000
PERSONNEL & OTHER (COMPANY)	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000
DEPRECIATION EXPENSE	252,366	259,041	247,864	263,797	202,755	336,023	653,230	651,742	640,942
MAINTENANCE & REPAIR	244,462	271,645	295,227	322,544	399,415	399,415	399,415	399,415	399,415
TOTAL (OPERATING EXPENSES)	924,824	958,687	971,091	1,011,341	1,110,170	1,163,438	1,480,653	1,179,157	1,468,357
(OPERATING PROFIT)	41,138	126,990	233,805	309,800	333,189	399,032	128,161	175,887	233,029
NON-OPERATING REVENUES									
DIVIDEND	0	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
TOTAL (NON-OPERATING REVENUE)	0	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
NON-OPERATING LOSSES									
INTEREST ON PUBLIC BOND & DEBT INTEREST ON LONG-TERM LOAN	0	172	5,028	9,619	15,502	54,414	54,414	54,414	54,543
NET INCOME BEFORE TAX	41,738	141,392	243,352	314,756	332,242	359193	88,322	136,048	193,060
NET INCOME	41,738	141,392	243,352	314,756	332,262	359,193	88,322	136,048	193,040

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
357,523	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187
799,423	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237
167,281	172,310	172,310	172,310	172,310	172,310	172,310	172,310	172,310	172,310	172,310	172,310
46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000
19,987	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406
26,355	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907
169,405	174,233	174,233	174,233	174,233	174,233	174,233	174,233	174,233	174,233	174,233	174,233
2,843	2,999	2,999	2,999	2,999	2,999	2,999	2,999	2,999	2,999	2,999	2,999
50,490	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950
550	550	550	550	550	550	550	550	550	550	550	550
7,020	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560
57,120	58,020	58,020	58,020	58,020	58,020	58,020	58,020	58,020	58,020	58,020	58,020
3,615	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840
40,175	40,020	40,020	40,020	40,020	40,020	40,020	40,020	40,020	40,020	40,020	40,020
1,747,782	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217
124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000
304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000
632,625	619,998	408,153	408,153	408,153	400,000	400,000	286,685	256,685	256,685	256,685	256,685
399,415	399,415	399,415	399,415	399,415	399,415	399,415	399,415	399,415	399,415	399,415	399,415
1,460,040	1,447,413	1,235,568	1,235,568	1,235,568	1,227,415	1,227,415	1,114,100	1,084,100	1,084,100	1,084,100	1,084,100
287,742	346,804	558,649	558,649	558,649	566,802	566,802	680,117	710,117	710,117	710,117	710,117
14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
58,200	61,661	66,100	95,417	95,463	95,513	95,564	95,618	95,675	95,734	95,796	95,861
244,116	299,717	507,124	477,807	477,761	485,864	485,813	599,074	629,017	628,958	628,896	628,831
244,116	299,717	507,124	477,807	477,761	485,864	485,813	599,074	629,017	628,958	628,896	628,831

2006	2007	2008	2009	2010	2011	2012	2013	2014
368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187
823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237
172,310	172,310	172,310	172,310	172,310	172,310	172,310	172,310	172,310
46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000
20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406
26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907
174,233	174,233	174,233	174,233	174,233	174,233	174,233	174,233	174,233
2,999	2,999	2,999	2,999	2,999	2,999	2,999	2,999	2,999
49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950
550	550	550	550	550	550	550	550	550
7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560
58,020	58,020	58,020	58,020	58,020	58,020	58,020	58,020	58,020
3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840
40,020	40,020	40,020	40,020	40,020	40,020	40,020	40,020	40,020
1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217	1,794,217
124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000	124,000
304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000
256,685	256,685	228,771	228,771	208,521	189,881	189,881	189,881	189,881
399,415	399,415	399,415	399,415	399,415	399,415	399,415	399,415	399,415
1,084,100	1,084,100	1,056,186	1,056,186	1,035,936	1,017,296	1,017,296	1,017,296	1,017,296
710,117	710,117	738,031	738,031	758,281	776,921	776,921	776,921	776,921
14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
95,929	96,001	96,076	96,154	96,405	100,751	91,959	85,150	106,976
628,762	628,691	656,529	656,450	676,450	690,744	699,536	706,345	684,519
628,762	628,691	656,529	656,450	676,450	690,744	699,536	706,345	684,519

Table M-10 Balance Sheet

Note: Due to rouding error the total assets do not exactly equal the total liabilities & equity.

(Unit: '000 pesos)

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993
ASSETS									
ASSETS									
CURRENT ASSETS									
CASH	312809	713242	1204457	1783009	2398026	3093242	3834802	4622592	5456337
SECURITIES IN CUSTODY	91091	91091	91091	91091	91091	91091	91091	91091	91091
TOTAL (CURRENT ASSETS)	403900	804333	1295548	1874100	2489117	3184333	3925893	4713683	5547428
FIXED ASSETS									
PROPERTY & EQUIPMENT									
LAND	0	0	0	170200	170200	186775	186775	186775	186775
BUILDINGS	992943	992943	992943	992943	1321943	1650943	1650943	1650943	1650943
DEPRECIATION	701481	730283	759085	787887	816689	858651	894183	929143	964103
VALUATION	291462	262660	233856	205056	505254	792292	756760	721800	686840
STRUCTURES	7054148	7054148	7830248	8443068	9683068	10102443	10102443	10102443	10102443
DEPRECIATION	2504794	2682941	2861090	3062019	3284014	3534024	3795198	4056373	4306747
VALUATION	4549354	4371207	4969158	5381046	6399049	6568409	6307233	6046058	5795684
MACHINERY & EQUIPMENT	255998	255998	255998	255998	319133	2208008	2208008	2208008	2208008
DEPRECIATION	188358	238987	248438	251039	251535	264658	498641	732623	966606
VALUATION	67640	17011	7560	4959	67598	1943349	1709365	1475381	1241397
VEHICLES	2685	2685	2685	2685	2685	460810	460810	460810	460810
DEPRECIATION	537	1074	1611	2148	2685	2685	94310	185935	277560
VALUATION	2148	1611	1074	537	0	458125	366500	274875	183250
VESSELS	13878	463878	463878	463878	463878	463878	463878	463878	463878
DEPRECIATION	8372	9252	40177	71102	102028	132953	163878	193878	223878
VALUATION	5551	454626	423701	392776	361850	330925	300000	270000	240000
CONSTRUCTION IN PROGRESS	644875	1529970	1882666	2115774	3111950	0	0	0	0
TOTAL (PROPERTY & EQUIPMENT)	5561029	6637084	7518014	8270345	10615899	10279874	9626644	8974902	8333960
TOTAL (FIXED ASSETS)	5561029	6637084	7518014	8270345	10615899	10279874	9626644	8974902	8333960
TOTAL (ASSETS)	5964929	7441417	8813562	10144445	13105016	13464207	13552537	13688585	13881388
LIABILITIES & EQUITY									
LIABILITIES									
CURRENT LIABILITIES									
FIXED LIABILITIES									
BONDS									
GOVERNMENTAL BOND (EXIST)	789000	789000	789000	789000	789000	789000	789000	789000	789000
GOVERNMENTAL BOND (NEW)	187615	1318270	2253766	3022194	4012105	4012105	4012105	4012105	4012105
TOTAL (BONDS)	976615	2107270	3042766	3811194	4801105	4801105	4801105	4801105	4801105
LONG-TERM BORROWING	7260	211170	405000	652700	2291100	2291100	2291100	2291100	2290843
TOTAL (FIXED LIABILITIES)	983875	2318970	3447766	4463894	7092205	7092205	7092205	7092205	7091948
TOTAL (LIABILITIES)	983875	2318970	3447766	4463894	7092205	7092205	7092205	7092205	7091948
EQUITY									
CAPITAL STOCK									
NET WORTH & OTHERS									
FIXED OR STOCKS	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
TOTAL (NET WORTH & OTHERS)	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
TOTAL (CAPITAL STOCK)	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
LEGAL RESERVE									
EARNED RESERVE	41738	183130	426483	741239	1073501	1432694	1521016	1657064	1850124
TOTAL (LEGAL RESERVE)	41738	183130	426483	741239	1073501	1432694	1521016	1657064	1850124
TOTAL (EQUITY)	4981054	5122446	5365798	5680554	6012817	6372010	6460332	6596380	6789440
TOTAL (LIABILITIES & EQUITY)	5964929	7441416	8813564	10144448	13105022	13464215	13552537	13688585	13881388

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
6325581	7230604	8121725	8924442	9723111	10517538	11307519	12092840	12873277	13648595	14418549	15182880
91091	91091	91091	91091	91091	91091	91091	91091	91091	91091	91091	91091
6416672	7321695	8212816	9015533	9814202	10608629	11398610	12183931	12964368	13739686	14509640	15273971
186775	186775	186775	186775	186775	186775	186775	186775	186775	186775	186775	186775
1650943	1650943	1650943	1650943	1650943	1650943	1650943	1650943	1650943	1650943	1650943	1650943
999063	1034023	1068983	1103943	1138903	1173863	1208823	1243783	1278743	1313703	1348663	1383623
651880	616920	581960	547000	512040	477080	442120	407160	372200	337240	302280	267320
10102443	10102443	10102443	10102443	10102443	10102443	10102443	10102443	10102443	10102443	10102443	10102443
4548805	4790866	5011727	5232189	5452851	5665854	5878861	6091866	6304871	6517876	6730881	6943888
5553626	5311568	5090907	4870245	4649579	4436575	4223571	4010566	3797560	3584557	3371552	3158546
2208008	2208008	2208008	2208008	2208008	2208008	2208008	2208008	2208008	2208008	2208008	2208008
1200586	1421942	1544470	1667004	1789534	1911567	2033605	2042325	2051042	2059765	2068485	2077202
1007418	786062	663531	541001	418470	296435	174400	165680	156960	148240	139520	130800
460810	460810	460810	460810	460810	460810	460810	460810	460810	460810	460810	460810
369185	460810	460810	460810	460810	460810	460810	460810	460810	460810	460810	460810
91625	0	0	0	0	0	0	0	0	0	0	0
463878	463878	463878	463878	463878	463878	463878	463878	463878	463878	463878	463878
253878	283878	313878	343878	373878	403878	433878	463878	463878	463878	463878	463878
210000	180000	150000	120000	90000	60000	30000	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
7701335	7081336	6673184	6265030	5856877	5456877	5056876	4770177	4513500	4256811	4000132	3743450
7701335	7081336	6673184	6265030	5856877	5456877	5056876	4700177	4513500	4256811	4000132	3743450
14118007	14403031	14886000	15280563	15671079	16065506	16455486	16954108	17477868	17996496	18509772	19017420
789000	789000	789000	789000	789000	789000	789000	789000	789000	789000	789000	789000
4012105	4012105	4012105	4012105	4012105	4012105	4012105	4012105	4012105	4012105	4012105	4012105
4801105	4801105	4801105	4801105	4801105	4801105	4801105	4801105	4801105	4801105	4801105	4801105
2283346	2268654	2244499	2161255	2074011	1982574	1886742	1786304	1681040	1570715	1455088	1333905
7084451	7069759	7045604	6962360	6875116	6783679	6687847	6587409	6482145	6371820	6256193	6135010
7084451	7069759	7045604	6962360	6875116	6783679	6687847	6587409	6482145	6371820	6256193	6135010
4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
2094240	2393956	2901080	3378887	3856647	4342511	4828323	5427396	6056413	6685370	7314265	7943095
2094240	2393956	2901080	3378887	3856647	4342511	4828323	5427396	6056413	6685370	7314265	7943095
7033556	7333272	7840396	8318203	8795963	9281827	9767639	10366712	10995729	11624686	12253581	12882411
14118007	14403031	14886000	15280563	15671079	16065506	16455486	16954108	17477868	17996492	18509772	19017420

2006	2007	2008	2009	2010	2011	2012	2013	2014
15941319	16693582	17439372	18178379	18909940	19625821	20359888	21108161	21815964
91091	91091	91091	91091	91091	91091	91091	91091	91091
16032410	16784672	17530463	18269460	19001031	19716912	20450979	21199252	21907055
186775	186775	186775	186775	186775	186775	186775	186775	186775
1650943	1650943	1650943	1650943	1650943	1650943	1650943	1650943	1650943
1418583	1453543	1479863	1506183	1532503	1558823	1585143	1611463	1637783
232360	197400	171080	144760	118440	92120	65800	39480	13160
10102443	10102443	10102443	10102443	10102443	10102443	10102443	10102443	10102443
7156891	7369895	7563628	7757359	7930840	8085684	8240526	8395367	8550208
2945539	2732535	2538802	2435070	2171589	2016749	1861907	1707068	1552225
2208008	2208008	2208008	2208008	2208008	2208008	2208008	2208008	2208008
2085925	2094645	2103362	2112085	2120805	2129522	2138245	2146965	2155682
122080	113360	104640	95920	87200	78480	69760	61040	52320
460810	460810	460810	460810	460810	460810	460810	460810	460810
460810	460810	460810	460810	460810	460810	460810	460810	460810
0	0	0	0	0	0	0	0	0
463878	463878	463878	463878	463878	463878	463878	463878	463878
463878	463878	463878	463878	463878	463878	463878	463878	463878
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
3486765	3230081	3001293	2772536	2564005	2374183	2184233	1994344	1804477
3486765	3230081	3001293	2772536	2564005	2374183	2184233	1994344	1804477
19519164	20014748	20531756	21041996	21565036	22091036	22635212	23193596	23711532
789000	789000	789000	789000	789000	789000	789000	789000	789000
4012105	4012105	4012105	4012105	4012105	4012105	4012105	4012105	4012105
4801105	4801105	4801105	4801105	4801105	4801105	4801105	4801105	4801105
1206897	1073785	934275	788060	634650	469906	314554	166601	4
6008002	5874890	5735380	5589165	5435754	5271010	5115659	4967706	4801109
6008002	5874890	5735380	5589165	5435754	5271010	5115659	4967706	4801109
4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316	4939316
8571857	9200547	9857075	10513525	11189974	11880717	12580252	13286596	13971114
8571857	9200547	9857075	10513525	11189974	11880717	12580252	13286596	13971114
13511173	14139863	14796391	15452841	16129290	16820028	17519564	18225900	18910428
19519164	20014748	20531756	21041996	21565036	22091036	22635212	23193596	23711532

Table M-11 Source and Application of Funds

(Unit: '000 pesos)

Item	1985	1986	1987	1988	1989	1990	1991 1	1992 2	1993
SOURCE									
LONG-TERM SOURCE									
NET INCOME	41738.	141392.	243352.	314756.	332262.	359193.	88322.	136048.	193060.
RESERVES									
DEPRECIATION RESERVES	252366.	259041.	247864.	263797.	282755.	336023.	653238.	651742.	640942.
LONG-TERM FUNDS									
BONDS									
GOVERNMENTAL BOND (EXIST)	789000.	0.	0.	0.	0.	0.	0.	0.	0.
GOVERNMENTAL BOND (NEW)	187615.	1130655.	935496.	768428.	989911.	0.	0.	0.	0.
LONG-TERM BORROWING	7260.	204440.	193300.	247700.	1638400.	0.	0.	0.	0.
TOTAL (LONG-TERM SOURCE)	1277979.	1735528.	1620011.	1594680.	3243328.	695216.	741560.	787790.	834002.
APPLICATION									
LONG-TERM APPLICATION									
WORKS OF PORT FACILITIES									
LAND	0.	37355.	141133.	4972.	3315.	0.	0.	0.	0.
BREAKWATER WATERWAY ANCHORAGE	0.	538760.	178905.	59635.	0.	0.	0.	0.	0.
BERTH & BUOY	533875.	654500.	537790.	502293.	51737.	0.	0.	0.	0.
PORT TRAFFIC	0.	0.	8520.	61363.	52842.	0.	0.	0.	0.
HANDLING EQUIPMENT	0.	0.	196068.	335545.	1919997.	0.	0.	0.	0.
PASSENGER TERMINAL	0.	13900.	0.	0.	24950.	0.	0.	0.	0.
PARK & OTHER ENVIRONMENT	0.	42180.	42180.	28120.	551270.	0.	0.	0.	0.
WATER SUPPLYING FACILITY	0.	48400.	24200.	24200.	24200.	0.	0.	0.	0.
TUG	450000.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL (WORKS OF PORT FACILI	983875.	1335095.	1128796.	1016128.	2628311.	0.	0.	0.	0.
BOND REDEMPTION									
LONG-TERM BORROWING	0.	0.	0.	0.	0.	0.	0.	0.	257.
TOTAL (BOND REDEMPTION)	0.	0.	0.	0.	0.	0.	0.	0.	257.
TOTAL (LONG-TERM APPLICATION)	983875.	1335095.	1128796.	1016128.	2628311.	0.	0.	0.	257.
SHORT-TERM SOURCE									
TOTAL (SOURCE)	1277979.	1735528.	1620011.	1594680.	3243328.	695216.	741560.	787790.	834002.
SHORT-TERM APPLICATION									
CASH INCREMENT	294104.	400433.	491215.	578552.	615017.	695216.	741560.	787790.	833746.
TOTAL (SHORT-TERM AP.)	294104.	400433.	491215.	578552.	615017.	695216.	741560.	787790.	833746.
TOTAL (APPLICATION)	1277979.	1735528.	1620011.	1594680.	3243328.	695216.	741560.	787790.	834002.

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
244116.	299717.	507124.	477807.	477761.	485864.	485813.	599074.	629017.	628958.	628896.	628831.
632625.	619998.	408153.	408153.	408153.	400000.	400000.	286685.	256685.	256685.	256685.	256685.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
876742.	919715.	915277.	885960.	885913.	885864.	885813.	885758.	885702.	885643.	885580.	885515.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7497.	14692.	24155.	83243.	87244.	91437.	95831.	100437.	105264.	110324.	115626.	121183.
7497.	14692.	24155.	83243.	87244.	91437.	95831.	100437.	105264.	110324.	115626.	121183.
7497.	14692.	24155.	83243.	87244.	91437.	95831.	100437.	105264.	110324.	115626.	121183.
876742.	919715.	915277.	885960.	885913.	885864.	885813.	885758.	885702.	885643.	885580.	885515.
869244.	905023.	891121.	802717.	798670.	794427.	789981.	785321.	780437.	775319.	769954.	764332.
869244.	905023.	891121.	802717.	798670.	794427.	789981.	785321.	780437.	775319.	769954.	764332.
876742.	919715.	915277.	885960.	885913.	885864.	885813.	885758.	885702.	885643.	885580.	885515.

2006	2007	2008	2009	2010	2011	2012	2013	2014
628762.	628691.	656529.	656450.	676450.	690744.	699536.	706345.	684519.
256685.	256685.	228771.	228771.	208521.	189881.	189881.	189881.	189881.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
885447.	885376.	885300.	885222.	884971.	880625.	889417.	896226.	874400.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
127008.	133112.	139510.	146215.	153411.	164744.	155351.	147953.	166597.
127008.	133112.	139510.	146215.	153411.	164744.	155351.	147953.	166597.
127008.	133112.	139510.	146215.	153411.	164744.	155351.	147953.	166597.
885447.	885376.	885300.	885222.	884971.	880625.	889417.	896226.	874400.
758439.	752263.	745790.	739007.	731561.	715881.	734067.	748273.	707803.
758439.	752263.	745790.	739007.	731561.	715881.	734067.	748273.	707803.
885447.	885376.	885300.	885222.	884971.	880625.	889417.	896226.	874400.

Table M-12 Income Statement (Servicios Portuarios de Manzanillo, S.A. de C.V.)

(Unit: '000 pesos)

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993
Operating Revenues									
Charges for Facilities									
Loading & Unloading Charge	196,467	220,119	243,908	267,561	291,350	315,003	325,667	336,194	346,859
Cargo Handling Charge	423,479	479,616	535,753	591,891	648,028	704,165	727,979	751,794	775,608
Water Supply	11,421	12,792	14,162	15,571	16,941	18,312	18,730	19,149	19,568
Towage	15,060	16,867	18,674	20,532	22,339	24,146	24,698	25,251	25,803
Fumigation & Other	43,350	45,210	47,070	48,930	50,790	52,650	52,110	51,570	51,030
Other (Company)	550	550	550	550	550	550	550	550	550
Total (Operating Revenues)	690,327	775,154	860,118	945,034	1,029,998	1,114,825	1,149,734	1,184,507	1,219,415
Operating Expenses									
Personnel & Other (Company)	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000
Depreciation Expense	52,662	52,662	41,485	34,635	32,529	44,619	234,544	233,048	233,048
Maintenance & Repair	79,737	79,737	79,737	88,289	128,797	128,797	128,797	128,797	128,797
Total (Operating Expenses)	436,399	436,399	425,222	426,924	465,326	477,416	667,341	665,845	665,845
(Operating Profit)									
Non-Operating Revenues									
Devidend	0	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
Total (Non-Operating Revenue)	0	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
Non-Operating Losses									
Interest on Public Bond & Debt									
Interest on Long-Term Loan	0	0	0	712	4,560	22,705	22,705	22,705	22,705
Total (Non-Operating Losses)	0	0	0	712	4,560	22,705	22,705	22,705	22,705
Net Income Before Tax	253,927	353,329	449,470	531,973	574,687	629,278	474,262	510,532	545,440
Net Income	253,927	353,329	449,470	531,973	574,687	629,278	474,262	510,532	545,440

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
357,523	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187	368,187
799,423	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237	823,237
19,987	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406	20,406
26,355	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907	26,907
50,490	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950	49,950
550	550	550	550	550	550	550	550	550	550	550	550
1,254,325	1,289,235	1,289,235	1,289,235	1,289,235	1,289,235	1,289,235	1,289,235	1,289,235	1,289,235	1,289,235	1,289,235
304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000
233,048	220,421	30,496	30,496	30,496	30,000	30,000	30,000	0	0	0	0
128,797	128,797	128,797	128,797	128,797	128,797	128,797	128,797	128,797	128,797	128,797	128,797
665,845	653,218	463,293	463,293	463,293	462,797	462,797	462,797	432,797	432,797	432,797	432,797
14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575	14,575
22,705	23,242	26,140	39,808	39,827	39,847	39,868	39,890	39,914	39,938	39,964	39,990
22,705	23,242	26,140	39,808	39,827	39,847	39,868	39,890	39,914	39,938	39,964	39,990
580,350	627,350	814,377	800,708	800,689	801,165	801,144	801,122	831,098	831,074	831,049	831,022
580,350	627,350	814,377	800,708	800,689	801,165	801,144	801,122	831,098	831,074	831,049	831,022

Table M-13 Source and Application of Funds
(Servicios Portuarios de Manzanillo, S.A. de C.V.)

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993
SOURCE									
LONG-TERM SOURCE									
NET INCOME	253927.	353329.	449470.	531973.	574687.	629278.	474262.	510532.	545440.
RESERVES									
DEPRECIATION RESERVES	52662.	52662.	41485.	34635.	32529.	44619.	234544.	233048.	233048.
LONG-TERM FUNDS									
BONDS									
GOVERNMENTAL BOND (EXIST)	450000.	0.	0.	0.	0.	0.	0.	0.	0.
GOVERNMENTAL BOND (NEW)	0.	0.	1568.	9045.	46147.	0.	0.	0.	0.
LONG-TERM BORROWING	0.	0.	30000.	162000.	764000.	0.	0.	0.	0.
TOTAL (LONG-TERM SOURCE)	756590.	405991.	522523.	737652.	1417362.	673898.	708807.	743580.	778488.
APPLICATION									
LONG-TERM APPLICATION									
WORKS OF PORT FACILITIES									
LAND	0.	3315.	4973.	0.	0.	0.	0.	0.	0.
HANDLING EQUIPMENT	0.	0.	31568.	171045.	810147.	0.	0.	0.	0.
TUG	450000.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL (WORKS OF PORT FACILI	450000.	3315.	36541.	171045.	810147.	0.	0.	0.	0.
BOND REDEMPTION									
LONG-TERM BORROWING	0.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL (BOND REDEMPTION)	0.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL (LONG-TERM APPLICATION)	450000.	3315.	36541.	171045.	810147.	0.	0.	0.	0.
SHORT-TERM SOURCE									
TOTAL (SOURCE)	756590.	405991.	522523.	737652.	1417362.	673898.	708807.	743580.	778488.
SHORT-TERM APPLICATION									
CASH INCREMENT	306590.	402676.	485982.	566607.	607215.	673898.	708807.	743580.	778488.
TOTAL (SHORT-TERM AP.)	306590.	402676.	485982.	566607.	607215.	673898.	708807.	743580.	778488.
TOTAL (APPLICATION)	756590.	405991.	522523.	737652.	1417362.	673898.	708807.	743580.	778488.

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
580350.	627350.	814377.	800708.	800689.	801165.	801144.	801122.	831098.	831074.	831049.	831022.
233048.	220421.	30496.	30496.	30496.	30000.	30000.	30000.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
813398.	847771.	844873.	831204.	831185.	831165.	831144.	831122.	831098.	831074.	831049.	831022.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	1061.	6839.	34180.	35822.	37544.	39348.	41240.	43222.	45299.	47476.	49758.
0.	1061.	6839.	34180.	35822.	37544.	39348.	41240.	43222.	45299.	47476.	49758.
0.	1061.	6839.	34180.	35822.	37544.	39348.	41240.	43222.	45299.	47476.	49758.
813398.	847771.	844873.	831204.	831185.	831165.	831144.	831122.	831098.	831074.	831049.	831022.
813398.	846710.	838034.	797024.	795363.	793621.	791796.	789882.	787876.	785775.	783573.	781264.
813398.	846710.	838034.	797024.	795363.	793621.	791796.	789882.	787876.	785775.	783573.	781264.
813398.	847771.	844873.	831204.	831185.	831165.	831144.	831122.	831098.	831074.	831049.	831022.

Table M-14 Income Statement (Alternative Case)

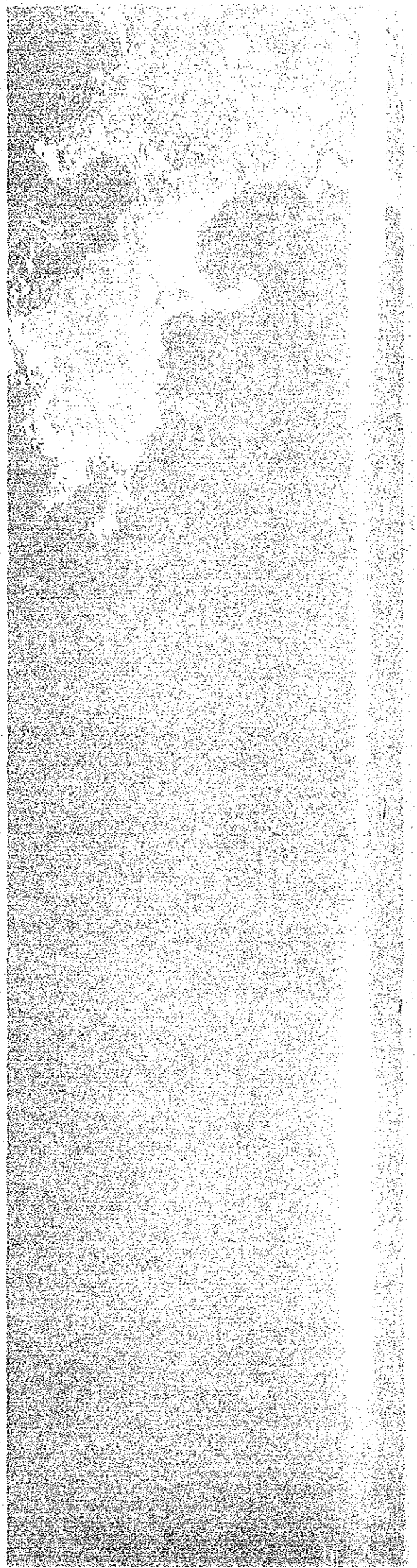
Item	1985	1986	1987	1988	1989	1990	1991	1992	1993
OPERATING REVENUES									
CHARGES FOR FACILITIES									
LOADING & UNLOADING CHARGE	190588	211232	231877	252522	273167	293811	302014	310081	318284
CARGO HANDLING CHARGE	412727	460592	508457	556322	604187	652052	670123	688193	706264
CHARGE FOR USE OF STORAGE	67109	79578	92048	104517	116987	129456	133044	136632	140219
OTHER (NATIONAL)	46000	46000	46000	46000	46000	46000	46000	46000	46000
WATER SUPPLY	9670	10964	12259	13515	14809	16104	16370	16637	16903
TOWAGE	12751	14458	16164	17821	19528	21235	21586	21937	22289
PORT DUES (FOREIGN TRADE)	77238	88301	99364	110427	121490	132553	135957	139342	142746
PORT DUES (DOMESTIC TRADE)	2659	2576	2493	2401	2318	2236	2346	2456	2567
FUMIGATION & OTHER	43350	45210	47070	48930	50790	52650	52111	51572	51033
OTHER (COMPANY)	550	550	550	550	550	550	550	550	550
CHARGE FOR USE OF WHARF (EX)	2205	2730	3255	3795	4320	4855	5205	5565	5910
CHARGE FOR USE OF WHARF (IM)	30810	34560	38280	42030	45750	49500	50160	50850	51510
CHARGE FOR USE OF WHARF (DM)	3300	3165	3030	2910	2775	2640	2835	3030	3240
CHARGE FOR USE OF QUAYWALL	32927	33484	34042	34599	35157	35714	36354	36994	37634
TOTAL (OPERATING REVENUES)	931822	1033400	1134888	1236338	1337825	1439342	1474652	1509837	1545147
OPERATING EXPENSES									
PERSONNEL & OTHER (NATIONAL)	124000	124000	124000	124000	124000	124000	124000	124000	124000
PERSONNEL & OTHER (COMPANY)	304000	304000	304000	304000	304000	304000	304000	304000	304000
DEPRECIATION EXPENSE	252366	259041	247864	263797	282755	336023	653238	651742	640942
MAINTENANCE & REPAIR	244462	271646	295227	322544	399415	399415	399415	399415	399415
TOTAL (OPERATING EXPENSES)	924828	958687	971091	1014341	1110170	1163438	1480653	1479157	1468357
NON-OPERATING REVENUES									
DIVIDEND	0	14575	14575	14575	14575	14575	14575	14575	14575
TOTAL (NON-OPERATING REVENUE)	0	14575	14575	14575	14575	14575	14575	14575	14575
NON-OPERATING LOSSES									
INTEREST ON PUBLIC BOND & DEBT									
INTEREST ON LONG-TERM LOAN	0	172	5028	9619	15502	54414	54414	54414	54543
NET INCOME BEFORE TAX	7055	89115	173344	226953	226728	236065	-45840	-9159	36821
NET INCOME	7055	89115	173344	226953	216728	236065	-45840	-9159	36821

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
326351	334554	342620	350824	358890	367093	367093	367093	360993	367093	367093	367093
724334	742405	760475	778546	796616	814687	814687	814687	814687	814687	814687	814687
143807	147395	150983	154570	158158	161746	161746	161746	161746	161746	161746	161746
46000	46000	46000	46000	46000	46000	46000	46000	46000	46000	46000	46000
17170	17436	17703	17969	18236	18502	18502	18502	18502	18502	18502	18502
22640	22992	23343	23694	24046	24397	24397	24397	24397	24397	24397	23497
146150	149536	152940	156344	159729	163133	163133	163133	163133	163133	163133	163133
2677	2778	2889	2999	3110	3220	3220	3220	3220	3220	3220	3220
50494	49956	49417	48878	48339	47800	47800	47800	47800	47800	47800	47800
550	550	550	550	550	550	550	550	550	550	550	550
6270	6630	6990	7335	7695	8055	8055	8055	8055	8055	8055	8055
52200	52360	53550	54210	54900	55560	55560	55560	55560	55560	55560	55560
3435	3630	3825	4035	4230	4425	4425	4425	4425	4425	4425	4425
38274	38914	39554	40194	40834	41474	41474	41474	41474	41474	41474	41474
1580350	1615633	1650835	1686146	1721330	1756641	1756641	1756641	1756641	1756641	1756641	1756641
124000	124000	124000	124000	124000	124000	124000	124000	124000	124000	124000	124000
304000	304000	304000	304000	304000	304000	304000	304000	304000	304000	304000	304000
632625	619998	408153	408153	408153	400000	400000	286685	256685	256685	256685	256685
399415	399415	399415	399415	399415	399415	399415	399415	399415	399415	399415	399415
1460040	1447413	1235568	1235568	1235568	1227415	1227415	1114100	1084100	1084100	1084100	1084100
14575	14575	14575	14575	14575	14575	14575	14575	14575	14575	14575	14575
14575	14575	14575	14575	14575	14575	14575	14575	14575	14575	14575	14575
58200	61661	66100	95417	95463	95513	95564	95618	95675	95734	95796	95861
76684	121133	363742	369736	404874	448288	448237	561498	591441	591382	951320	591255
76684	121133	363742	369736	404874	448288	448237	561498	591441	591382	951320	591255

Table M-15 Source and Application of Funds (Alternative Case)

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993
SOURCE									
LONG-TERM SOURCE									
NET INCOME	7055.	89115.	173344.	226953.	226728.	236065.	-45840.	-9159.	36821.
RESERVES									
DEPRECIATION RESERVES	252366.	259041.	247864.	263797.	282755.	336023.	653238.	651742.	640942.
LONG-TERM FUNDS									
BONDS									
GOVERNMENTAL BOND (EXIST)	789000.	0.	0.	0.	0.	0.	0.	0.	0.
GOVERNMENTAL BOND (NEW)	187615.	1130655.	935496.	768428.	989911.	0.	0.	0.	0.
LONG-TERM BORROWING	7260.	204440.	193300.	247700.	1638400.	0.	0.	0.	0.
TOTAL (LONG-TERM SOURCE)	1243295.	1683250.	1550003.	1506877.	3137794.	572088.	607398.	642583.	677763.
APPLICATION									
LONG-TERM APPLICATION									
WORKS OF PORT FACILITIES									
LAND	0.	37355.	141133.	4972.	3315.	0.	0.	0.	0.
BREAKWATER WATERWAY ANCHORAGE	0.	538760.	178905.	59635.	0.	0.	0.	0.	0.
BERTH & BUOY	533875.	654500.	537790.	502293.	51737.	0.	0.	0.	0.
PORT TRAFFIC	0.	0.	8520.	61363.	52842.	0.	0.	0.	0.
HANDLING EQUIPMENT	0.	0.	196068.	335545.	1919997.	0.	0.	0.	0.
PASSENGER TERMINAL	0.	13900.	0.	0.	24950.	0.	0.	0.	0.
PARK & OTHER ENVIRONMENT	0.	42180.	42180.	28120.	551270.	0.	0.	0.	0.
WATER SUPPLYING FACILITY	0.	48400.	24200.	24200.	24200.	0.	0.	0.	0.
TUG	450000.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL (WORKS OF PORT FACILI	983875.	1335095.	1128796.	1016128.	2628311.	0.	0.	0.	0.
BOND REDEMPTION									
LONG-TERM BORROWING	0.	0.	0.	0.	0.	0.	0.	0.	257.
TOTAL (BOND REDEMPTION)	0.	0.	0.	0.	0.	0.	0.	0.	257.
TOTAL (LONG-TERM APPLICATION)	983875.	1335095.	1128796.	1016128.	2628311.	0.	0.	0.	257.
SHORT-TERM SOURCE									
TOTAL (SOURCE)	1243295.	1683250.	1550003.	1506877.	3137794.	572088.	607398.	642583.	677763.
SHORT-TERM APPLICATION									
CASH INCREMENT	259420.	348155.	421207.	490749.	509483.	572088.	607398.	642583.	677507.
TOTAL (SHORT-TERM AP.)	259420.	348155.	421207.	490749.	509483.	572088.	607398.	642583.	677507.
TOTAL (APPLICATION)	1243295.	1683250.	1550003.	1506877.	3137794.	572088.	607398.	642583.	677763.

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
76684.	121133.	363742.	369736.	404874.	448288.	448237.	561498.	591441.	591382.	591320.	591255.
632625.	619998.	408153.	408153.	408153.	400000.	400000.	286685.	256685.	256685.	256685.	256685.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
709310.	741131.	771895.	777889.	813026.	848288.	848237.	848182.	848126.	848067.	848004.	847939.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7497.	14692.	24155.	83243.	87244.	91437.	95831.	100437.	105264.	110324.	115626.	121183.
7497.	14692.	24155.	83243.	87244.	91437.	95831.	100437.	105264.	110324.	115626.	121183.
7497.	14692.	24155.	83243.	87244.	91437.	95831.	100437.	105264.	110324.	115626.	121183.
709310.	741131.	771895.	777889.	813026.	848288.	848237.	848182.	848126.	848067.	848004.	847939.
701812.	726439.	747739.	694646.	725783.	756851.	752405.	747745.	742861.	737743.	732378.	726756.
701812.	726439.	747739.	694646.	725783.	756851.	752405.	747745.	742861.	737743.	732378.	726756.
709310.	741131.	771895.	777889.	813026.	848288.	848237.	848182.	848126.	848067.	848004.	847939.



JICA