

Chapter 12.

FINANCIAL ANALYSIS

Chapter 12. FINANCIAL ANALYSIS

12.1 General

In this Chapter, an analysis will be made of the profitability that can be expected in each of the 4 cases listed in Table 12-1 for implementing the envisaged Project to evaluate the financial soundness of the Project and to select the Case that should be the most suitable for implementation.

Table 12-1. Alternative Cases Considered

Case	Product	Construction Method	Annual Production
"A"	Corrugating medium	Platform*	39,600 A.D T
"B"		Conventional**	
"C"	Printing/writing paper	Platform	23,100 A.D T
"D"		Conventional	

Remarks: * Platform-mounted construction system
** Conventional piece-meal construction system

The present financial analysis is performed by considering the Project as being undertaken by a private enterprise, and calculating the profitability by balancing the total estimated expenditures for plant construction and operation against the proceeds from product sales and deriving therefrom such financial data as funds flow statements, balance sheets, profitability and financial indicators.

The profitability of the Project will be further evaluated from calculations of I.R.R and of the payout period.

The unit adopted throughout the analysis is US. Dollars, all conversions to this currency being made at the exchange rate of: US.\$1.00 = Yen 230 = Sc.33

12.2 Total Investment Cost

Total investment cost consists of the following:

- Plant cost
- Land acquisition
- Preoperation cost
- Initial working capital
- Interest during construction.

The above total investment cost is estimated on the assumption of turn key, lump-sum contract effected on July 1, 1984.

The summary breakdown of total investment costs for 4 cases are presented in table 12-2.

12.2.1 Total Investment Cost for Corrugating Medium Manufacturing Plant

The total investment cost for a corrugating medium plant having a yearly production capacity of 39,600 tons is estimated for the 2 cases of:

- Platform-mounted construction system (Case "A")
- Conventional piece-meal construction (Case "B")

(1) Plant Cost

- Equipment and machinery

This item covers the aggregate F.O.B price, including cost of engineering, of all equipment and machinery required for the plant and ancillary facilities, assumed to be totally imported.

Table 12-2. Summary Breakdown of Total Investment Cost By Case

(Unit: US.\$1,000)

	Case "A"	Case "B"	Case "C"	Case "D"
<u>Plant Cost</u>				
Equipment & machinery	51,470	38,066	61,679	43,566
Equipment erection	4,690	6,848	5,527	7,806
Site preparation	1,866	11,414	1,866	11,641
Civil works & building	7,565	10,729	7,565	11,094
Ocean freight & insurance	2,315	2,739	2,745	3,150
Inland transportation	-	9,587	-	9,678
Contingency	2,227	2,824	2,570	3,062
Sub-total	70,169	82,207	81,952	89,997
<u>Land Acquisition</u>	5	5	5	5
<u>Preoperation Cost</u>				
Preinvestment studies, tendering & evaluation, project implementation	4,190	5,410	4,659	5,768
Recruitment & training	300	300	362	362
Contingency	135	171	150	184
Sub-total	4,625	5,881	5,171	6,314
<u>Interest During Construction</u>	10,122	17,545	11,822	19,265
<u>Initial Working Capital</u>				
Spare parts	1,679	1,679	1,823	1,823
Cash	7,779	7,575	9,124	8,865
Sub-total	9,458	9,254	10,947	10,688
Total Investment Cost	94,379	114,892	109,897	126,269

Table 12-3. Equipment and Machinery Cost (F.O.B)

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "A"	51,470	—	51,470
Case "B"	38,066	—	38,066

Note: Case "A" includes the cost of installing the machinery and equipment on the floating platform.

— Installation of machinery and equipment

The installation work described in Section 9.8.4 of Chapter 9 is envisaged to be performed by local contractors with supervision provided by plant manufacturers; the cost covering this work is hence accounted for in both local and foreign currencies.

For Case "A", the coverage of installation cost is limited to the items of floating platform grounding, ancillary land-based facilities and piping/cabling connections between platform and land.

Table 12-4. Equipment Erection Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "A"	2,599	2,091	4,690
Case "B"	3,469	3,379	6,848

— Site preparation work

This work covers preparation of the plant site, including the requisite con-

struction equipment and materials.

The work will be performed by local contractors and all costs for this work are in local currency.

Table 12-5. Site Preparation Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "A"	–	1,866	1,866
Case "B"	–	11,414	11,414

– Civil work and buildings

This work covers civil, foundation and concrete work, as well as building construction at plant site, including the requisite construction equipment and materials.

The work will be performed by local contractors, and all costs for this work are in local currency.

Table 12-6. Civil Works and Buildings Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "A"	–	7,565	7,565
Case "B"	–	10,729	10,729

– Ocean freight and insurance

These cover imported goods such as plant machinery and equipment, and construction equipment and materials for work at site.

For Case “A”, all imported goods are mounted on the floating platform at supplier’s shipyard before shipment and delivery through the port of Esmeraldas to plant site.

For Case “B”, the machinery and equipment will be divided into about 10 shipments for delivery to site to suit the construction schedule.

At Esmeraldas, the imported goods will be transported onto barge for forwarding to San Lorenzo, where they will be unloaded for transportation by land to plant site.

Transportation costs are estimated for Case “A” to cover towage to site, and for Case “B” carriage to San Lorenzo, all in foreign currency.

Table 12-7. Ocean Freight and Insurance Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case “A”	2,351	–	2,351
Case “B”	2,739	–	2,739

– Import tax

All import taxes are exempted, as stipulated by the “LEY DE LA CORPORACION FINANCIERA NACIONAL, Article 79, Exemption on Imports”.

– Inland transportation

This item covers transportation of machinery, equipment and materials for

the plant, and for its installation, through the final stretch within Ecuador, that is, over water from Esmeraldas to San Lorenzo, unloading at San Lorenzo, and over land to the site.

This cost will not be incurred in the Case "A", by which all imported goods will be transported to site in a single package mounted on platform.

For the Case "B" the item covers all expenses for transportation of the imported goods following their arrival at Esmeraldas until their delivery to the plant site, including cost of unloading facilities required at San Lorenzo, preparation of temporary storage site and of roadway to the plant site.

Table 12-8. Inland Transportation Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "A"	—	—	—
Case "B"	—	9,587	9,587

— Contingency

Reserve to cover contingencies is provided to the extent of 3% of the costs of plant machinery and equipment, ocean freight and insurance, erection work, and 5% of the costs of site preparation, civil work and buildings.

The contingency reserve is provided in both foreign and local currencies.

Table 12-9. Contingency

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "A"	1,693	534	2,227
Case "B"	1,328	1,496	2,824

- Total plant construction cost

The sum of all the foregoing costs are compiled in Tables 12-10 and -11.

Table 12-10. Plant Construction Cost – Case “A”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Equipment and machinery	51,470	–	51,470
Equipment erection	2,599	2,091	4,690
Site preparation	–	1,866	1,866
Civil works and buildings	–	7,565	7,565
Ocean freight and insurance	2,351	–	2,351
Import tax and duties	–	–	–
Inland transportation	–	–	–
Contingency	1,693	534	2,227
Total	58,113	12,056	70,169

Table 12-11. Plant Construction Cost – Case “B”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Equipment and machinery	38,066	–	38,066
Equipment erection	3,469	3,379	6,848
Site preparation	–	11,414	11,414
Civil works and buildings	–	10,729	10,729
Ocean freight and insurance	2,739	–	2,739
Import tax and duties	–	–	–
Inland transportation	–	9,587	9,587
Contingency	1,328	1,496	2,824
Total	45,602	36,605	82,207

(2) Land Acquisition

This expenditure foreseen for acquiring the requisite plant site, will all be in local currency.

Table 12-12. Land Acquisition Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "A"	—	5	5
Case "B"	—	5	5

(3) Preoperation Cost

The preoperation cost comprises, apart from the expenses for plant construction and for land acquisition, already presented, costs to cover:

- Preinvestment studies
- Tendering and evaluation
- Project implementation
- Recruitment and training
- Contingency

The cost will include foreign as well as local currencies, since it is envisaged to retain the services of a foreign consultant or of a foreign paper mill for technical assistance.

Table 12-13. Preoperation Cost -- Case "A"

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Preinvestment studies Tendering and evaluation Project implementation	2,439	1,751	4,190
Recruitment and training	180	120	300
Contingency	79	56	135
Total	2,698	1,927	4,625

Table 12-14. Preoperation Cost -- Case "B"

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Preinvestment studies Tendering and evaluation Project implementation	2,892	2,518	5,410
Recruitment and training	180	120	300
Contingency	92	79	171
Total	3,164	2,717	5,881

(4) Initial Working Capital

This covers operating funds requiring to be made available prior to plant commissioning, to cover the first year of operation.

Initial working capital comprises:

- Spare parts required for 12-months of initial plant operation
- Liquid assets, assets to cover current liabilities; expenses for technical assistance during the first year operation; contingency.

Table 12-15. Initial Working Capital – Case “A”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Spare parts	1,679	–	1,679
Cash	4,738	3,041	7,779
Total	6,417	3,041	9,458

Table 12-16. Initial Working Capital – Case “B”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Spare parts	1,679	–	1,679
Cash	4,708	2,867	7,575
Total	6,387	2,867	9,254

(5) Interest During Construction (Cost of raising funds)

This item covers the interest on the long-term loan accruing through the period of plant construction (the interest accruing after plant commissioning, together with repayment of principal will be charged to the operating cost).

The interest is calculated assuming the following expenditure schedules, and is as indicated in the Tables 12-17 and -18.

(6) Expenditure Schedule

The expenditure schedule covering the period of plant construction is based on the project implementation schedule contained in Section 11.5, Chapter 11, and is as presented herebelow in Table 12-17 and -18.

Table 12-17. Expenditure Schedule – Case “A”

(Unit: US.\$1,000)

Item	-4 (1983)		-3 (1984)		-2 (1985)		-1 (1986)		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
Plant cost	-	-	14,009	964	31,095	5,396	13,009	5,696	70,169
Land acquisition		5	-	-	-	-	-	-	5
Preoperation cost	1,256	-	754	177	251	554	437	1,196	4,625
Interest during construction		55		811		3,152		6,104	10,122
Initial working capital	-	-	-	-	-	-	6,417	3,041	9,458
Total	1,316		16,715		40,448		35,900		94,379

Table 12-18. Expenditure Schedule – Case “B”

(Unit: US.\$1,000)

Item	-5 (1983)		-4 (1984)		-3 (1985)		-2 (1986)		-1 (1987)		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
Plant cost	-	-	10,910	2,397	22,287	15,021	10,332	15,033	2,073	4,154	82,207
Land acquisition	-	5	-	-	-	-	-	-	-	-	5
Preoperation cost	1,341	-	745	177	298	554	298	634	483	1,351	5,881
Interest during construction		59		745		3,050		5,886		7,805	17,545
Initial working capital	-	-	-	-	-	-	-	-	6,387	2,867	9,254
Total	1,405		14,974		41,210		32,183		25,120		114,892

(7) Summation of Investment Costs

The foregoing investment costs are summed up in Table 12-19 and -20.

Table 12-19. Total Investment Cost – Case “A”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Plant cost	58,113	12,056	70,169
Land acquisition	-	5	5
Preoperation cost	2,698	1,927	4,625
Sub-total	60,811	13,988	74,799
Interest during construction	-	-	10,122
Initial working capital	6,417	3,041	9,458
Total			94,379

Table 12-20. Total Investment Cost – Case “B”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Plant cost	45,602	36,605	82,207
Land acquisition	–	5	5
Preoperation cost	3,164	2,717	5,881
Sub-total	48,766	39,327	88,093
Interest during construction	–	–	17,545
Initial working capital	6,387	2,867	9,254
Total			114,892

(8) Replacement Cost

Equipment of relatively low durability and which have consequently to be replaced during the project life are as listed in Table 12-21, together with the relevant costs.

These costs will be incurred after plant commissioning, and are consequently to be paid out of profit from operation.

Costs are therefore not included in the foregoing total investment cost.

Table 12-21. Replacement Cost

Item	Cost (US.\$1,000)	Replacement cycle	Number of replacements during Project life
Log transportation and road construction equipment	3,561	Every 5 years	2
Log transportation vehicles	1,396	Every 8 years	1

12.2.2 Total Investment Cost for Printing/Writing Paper Manufacturing Plant

The total investment cost for a printing/writing paper plant having a yearly production capacity of 23,100 tons is estimated for the 2 cases of:

- Platform-mounted construction system (Case "C")
- Conventional piece-meal construction (Case "D")

(1) Plant Cost

- Equipment and machinery

This item covers the aggregate F.O.B. price, including cost of engineering, of all equipment and machinery required for the plant and ancillary facilities, assumed to be totally imported.

Table 12-22. Equipment and Machinery Cost (F.O.B)

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "C"	61,679	-	61,679
Case "D"	43,566	-	43,566

Note: Case "C" includes the cost of installing the machinery and equipment on the floating platform.

– Installation of machinery and equipment

The installation work described in Section 9.8.4 of Chapter 9 is envisaged to be performed by local contractors with supervision provided by plant manufacturers; the cost covering this work is hence accounted for in both local and foreign currencies.

For Case “C”, the coverage of installation cost is limited to the items of floating platform grounding, ancillary land-based facilities and piping/cabling connections between platform and land.

Table 12-23. Equipment Erection Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case “C”	3,063	2,464	5,527
Case “D”	3,955	3,851	7,806

– Site preparation work

This work covers preparation of the plant site, including the requisite construction equipment and materials.

The work will be performed by local contractors and all costs for this work are in local currency.

Table 12-24. Site Preparation Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "C"	–	1,866	1,866
Case "D"	–	11,641	11,641

– Civil work and buildings

This work covers civil, foundation and concrete work, as well as building construction at plant site, including the requisite construction equipment and materials.

The work will be performed by local contractors, and all costs for this work are in local currency.

Table 12-25. Civil Works and Buildings Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "C"	–	7,565	7,565
Case "D"	–	11,094	11,094

– Ocean freight and insurance

These cover imported goods such as plant machinery and equipment, and construction equipment and materials for work at site.

For Case "C", all imported goods are mounted on the floating platform at supplier's shipyard before shipment and delivery through the port of Esmeraldas to plant site.

For Case "D", the machinery and equipment will be divided into about 10 shipments for delivery to site to suit the construction schedule.

At Esmeraldas, the imported goods will be transported onto barge for forwarding to San Lorenzo, where they will be unloaded for transportation by land to plant site.

Transportation costs are estimated for Case "C" to cover towage to site, and for Case "D" carriage to San Lorenzo, all in foreign currency.

Table 12-26. Ocean Freight and Insurance Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "C"	2,745	—	2,745
Case "D"	3,150	—	3,150

— Import tax

All import taxes are exempted, as stipulated by the "LEY DE LA CORPORACION FINANCIERA NACIONAL, Article 79, Exemption on Imports".

— Inland transportation

This item covers transportation of machinery, equipment and materials for the plant, and for its installation, through the final stretch within Ecuador, that is, over water from Esmeraldas to San Lorenzo, unloading at San Lorenzo, and over land to the site.

This cost will not be incurred in the Case "C", by which all imported goods will be transported to site in a single package mounted on platform.

For the Case "D" the item covers all expenses for transportation of the imported goods following their arrival at Esmeraldas until their delivery to

the plant site, including cost of unloading facilities required at San Lorenzo, preparation of temporary storage site and of roadway to the plant site.

Table 12-27. Inland Transportation Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "C"	—	—	—
Case "D"	—	9,678	9,678

— Contingency

Reserve to cover contingencies is provided to the extent of 3% of the costs of plant machinery and equipment, ocean freight and insurance, erection work, and 5% of the costs of site preparation, civil work and buildings.

The contingency reserve is provided in both foreign and local currencies.

Table 12-28. Contingency

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "C"	2,024	546	2,570
Case "D"	1,520	1,542	3,062

"ii

— Total plant construction cost

The sum of all the foregoing costs are compiled in Tables 12-29 and -30.

Table 12-29. Plant Construction Cost – Case “C”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Equipment and machinery	61,679	–	61,679
Equipment erection	3,063	2,464	5,527
Site preparation	–	1,866	1,866
Civil works and building	–	7,565	7,565
Ocean freight and insurance	2,745	–	2,745
Import tax and duties	–	–	–
Inland transportation	–	–	–
Contingency	2,024	546	2,570
Total	69,511	12,441	81,952

Table 12-30. Plant Construction Cost – Case “D”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Equipment and machinery	43,566	–	43,566
Equipment erection	3,955	3,851	7,806
Site preparation	–	11,641	11,641
Civil works and building	–	11,094	11,094
Ocean freight and insurance	3,150	–	3,150
Import tax and duties	–	–	–
Inland transportation	–	9,678	9,678
Contingency	1,520	1,542	3,062
Total	52,191	37,806	82,742

(2) Land Acquisition

This expenditure foreseen for acquiring the requisite plant site, will all be in local currency.

Table 12-31. Land Acquisition Cost

(Unit: US.\$1,000)

Case	Foreign Currency	Local Currency	Total
Case "C"	—	5	5
Case "D"	—	5	5

(3) Preoperation Cost

The preoperation cost comprises, apart from the expenses for plant construction and for land acquisition, already presented, costs to cover:

- Preinvestment studies
- Tendering and evaluation
- Project implementation
- Recruitment and training
- Contingency

The cost will include foreign as well as local currencies, since it is envisaged to retain the services of a foreign consultant or of a foreign paper mill for technical assistance.

Table 12-32. Preoperation Cost – Case “C”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Preinvestment studies Tendering and evaluation Project implementation	2,823	1,836	4,659
Recruitment and training	203	159	362
Contingency	91	59	150
Total	3,117	2,054	5,171

Table 12-33. Preoperation Cost – Case “D”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Preinvestment studies Tendering and evaluation Project implementation	3,152	2,616	5,768
Recruitment and training	203	159	362
Contingency	101	83	184
Total	3,456	2,858	6,314

(4) Initial Working Capital

This covers operating funds requiring to be made available prior to plant commissioning, to cover the first year of operation.

Initial working capital comprises:

- Spare parts required for 12-months of initial plant operation.
- Liquid assets, assets to cover current liabilities; expenses for technical assistance during the first year operation; contingency.

Table 12-34. Initial Working Capital – Case “C”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Spare parts	1,823	—	1,823
Cash	5,530	3,594	9,124
Total	7,353	3,594	10,947

Table 12-35. Initial Working Capital – Case “D”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Spare parts	1,823	—	1,823
Cash	5,483	3,382	8,865
Total	7,306	3,382	10,688

(5) Interest During Construction (Cost of raising funds)

This item covers the interest on the long-term loan accruing through the period of plant construction (the interest accruing after plant commissioning, together with repayment of principal will be charged to the operating cost).

The interest is calculated assuming the following expenditure schedules, and is as indicated in the Tables 12-36 and -37.

(6) Expenditure Schedule

The expenditure schedule covering the period of plant construction is based on the project implementation schedule contained in Section 11.5, Chapter 11, and is as presented herebelow in Table 12-36 and -37.

Table 12-36. Expenditure Schedule – Case “C”

(Unit: US.\$ 1,000)

Item	-4 (1983)		-3 (1984)		-2 (1985)		-1 (1986)		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
Plant cost	-	-	16,769	897	37,150	5,501	15,592	6,043	82,952
Land acquisition	-	5	-	-	-	-	-	-	5
Preoperation cost	1,455	-	872	177	290	554	500	1,323	5,171
Interest during construction		64		952		3,689		7,117	11,822
Initial working capital	-	-	-	-	-	-	7,353	3,594	10,947
Total	1,524		19,667		47,184		41,522		109,897

Table 12-37. Expenditure Schedule – Case “D”

(Unit: US.\$1,000)

Item	-5 (1983)		-4 (1984)		-3 (1985)		-2 (1986)		-1 (1987)		Total
	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	
Plant cost	-	-	12,483	2,444	25,504	15,362	11,838	15,521	2,366	4,479	89,997
Land acquisition	-	5	-	-	-	-	-	-	-	-	5
Preoperation cost	1,462	-	812	177	324	554	324	634	534	1,493	6,314
Interest during construction	65	-	829	-	3,366	-	6,449	-	8,556	-	19,265
Initial working capital	-	-	-	-	-	-	-	-	7,306	3,382	10,688
Total	1,532	-	16,745	2,621	45,110	15,916	34,766	16,155	28,116	3,875	126,269

(7) Summation of Investment Costs

The foregoing investment costs are summed up in Table 12-38 and -39.

Table 12-38. Total Investment Cost – Case “C”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Plant cost	69,511	12,441	81,952
Land acquisition	-	5	5
Preoperation cost	3,177	2,054	5,171
Sub-total	72,628	14,500	87,128
Interest during construction	-	-	11,822
Initial working capital	7,353	3,594	10,947
Total			109,897

Table 12-39. Total Investment Cost – Case “D”

(Unit: US.\$1,000)

Item	Foreign Currency	Local Currency	Total
Plant cost	52,191	37,806	89,997
Land acquisition	–	5	5
Preoperation cost	3,456	2,858	6,314
Sub-total	55,647	40,669	96,316
Interest during construction	–	–	19,265
Initial working capital	7,306	3,382	10,688
Total			126,269

(8) Replacement Cost

Equipment of relatively low durability and which have consequently to be replaced during the project life are as listed in Table 12-40, together with the relevant costs.

These costs will be incurred after plant commissioning, and are consequently to be paid out of profit from operation.

Costs are therefore not included in the foregoing total investment cost.

Table 12-40. Replacement Cost

Item	Cost (US.\$1,000)	Replacement cycle	Number of replacements during Project life
Log transportation and road construction equipment	3,561	Every 5 years	2
Log transportation vehicles	1,396	Every 8 years	1

12.3 Operating Cost

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The estimates of operating cost for 4 Cases considered cover the following items:

- Raw materials
- Auxiliary materials
- Personnel
- Plant management
- Repair and maintenance
- Technical assistance.

The yearly costs are calculated envisaging the operating schedule given in Chapter 10 "Plant Operation", by which the rates of capacity utilization are:

- In the case of platform-mounted system of construction.
 - 1st. year 65%
 - 2nd. year 95%
 - 3rd. year onward 100%
- In the case of conventional piece-meal system of construction.
 - 1st. year 60%
 - 2nd. year 85%
 - 3rd. year 95%
 - 4th. year onward 100%

The page that follow contain the substance of the operating cost thus estimated, preceded by:

- Table 12-41 giving a summary breakdown of annual operating cost after attainment of full production.
- Table 12-42 giving the progress of annual operating cost.

**Table 12-41. Summary Breakdown of Annual Operating Cost
After Attainment of Full Production**

(Unit: US.\$1,000)

	Case "A"	Case "B"	Case "C"	Case "D"
<u>Variable Cost</u>				
Raw materials cost	748	748	3,863	3,863
Timber dues	(86)	(86)	(86)	(86)
Imported softwood pulp	(-)	(-)	(3,115)	(3,115)
Reserved cash (Reforestation)	(662)	(662)	(662)	(662)
Auxiliary materials cost	5,182	5,182	6,985	6,985
Chemicals	(3,202)	(3,202)	(5,182)	(5,182)
Fuels	(1,584)	(1,584)	(1,318)	(1,318)
Sub-materials	(396)	(396)	(485)	(485)
Total Variable Cost	5,930	5,930	10,848	10,848
<u>Fixed Cost</u>				
Labor cost	5,532	5,532	6,506	6,506
Management cost	777	874	906	970
Insurance	(561)	(658)	(656)	(720)
General expenses	(216)	(216)	(250)	(250)
Repair and maintenance	1,679	1,679	1,823	1,823
Total Fixed Cost	7,988	8,085	9,235	9,299
<u>Technical Assistance</u>	(-)	(-)	(-)	(-)
Total Operation Cost	13,918	14,015	20,083	20,147

Table 12-42. Progress of Annual Operating Cost

(Unit: US.\$1,000)

	1st. year	2nd. year	3rd. year	4th. year	5th. year and after
Case "A"					
Variable cost	3,857	5,634	5,930	5,930	5,930
Fixed cost	7,988	7,988	7,988	7,988	7,988
Technical assistance	2,704	1,644	1,078	548	—
Total Operation Cost	14,549	15,262	14,996	14,466	13,918
Case "B"					
Variable cost	3,559	5,043	5,634	5,930	5,930
Fixed cost	8,085	8,085	8,085	8,085	8,085
Technical assistance	2,704	1,644	1,078	548	—
Total Operation Cost	14,348	14,772	14,797	14,563	14,015
Case "C"					
Variable cost	7,051	10,304	10,848	10,848	10,848
Fixed cost	9,235	9,235	9,235	9,235	9,235
Technical assistance	3,016	1,900	1,078	676	—
Total Operation Cost	19,302	20,439	21,161	20,759	20,083
Case "D"					
Variable cost	6,511	9,218	10,304	10,848	10,848
Fixed cost	9,299	9,299	9,299	9,299	9,299
Technical assistance	3,016	1,900	1,078	676	—
Total Operation Cost	18,826	20,417	20,681	20,823	20,147

12.3.1 Price Levels Adopted for Deriving Production Cost

The price levels adopted throughout the present financial analysis are those estimated to permit in 1987, which is the year of plant commissioning.

This 1987 price levels are estimated from those prevailing in 1982, and the price levels thus estimated for 1987 are applied throughout the ensuing life of the project.

Note: While the plant is envisaged to be commissioned in 1987 in Cases "A" and "C", in Cases "B" and "D" the commissioning would be 1988, which should, strictly speaking, produce a small difference in the price levels, but in the present analysis, the price levels for 1987 are adopted for all cases, to simplify both calculation and comparison.

(1) Estimated 1987 Price Level for Raw Materials

The cost to cover raw materials comprises timber dues, reforestation reserve, and cost of imported softwood pulp.

The timber dues are of fixed amount, stipulated in the felling contract, and are assumed to remain unmodified to 1987.

The reforestation reserve has been estimated for 1987.

The price of imported softwood pulp is adjusted to 1987 from that prevailing in 1982 (US.\$791/ton) by applying a yearly rise of 9.3%, which is based on the rate of rise adopted in Section 12.4.1 for the selling price.

(2) Estimated 1987 Price Level for Auxiliary Materials

Auxiliary materials comprise chemicals, fuel and other auxiliary materials.

The 1982 issue of the Boletín Anuario published by the Banco Central del Ecuador gives for 1980 the index figures of 144.3 for chemicals and petroleum products, indicating an annual rise of 6.3%, and the corresponding figures for the average commodity prices are 193.4 and 11.6% (1974 = Index 100).

The trend is more or less similar for these products in the world market.

Based on the foregoing data, the yearly rate of price rise has been estimated to be 6.3% for chemicals and fuel, and 11.6% for other auxiliary materials, in deriving the 1987 price level from that of 1982.

(3) Estimated 1987 Level of Labor Cost

The Código del Trabajo (Labor Code) sets forth the minimum wage figures of Sc.600 for 1968 and Sc.4,000 for 1982, indicating a yearly rise of 14.5%.

Note: No exceptionally sharp rise in wages was recorded even during the oil crises of 1973 to 1974, and the trend has remained relatively steady through the years.

Based on the above observations, the 1987 level of labor cost was estimated from the wage figures obtained from the Ecuadorian authorities for 1982, adjusted to 1987 with a yearly rise of 14.5%.

(4) Estimated 1987 Price Level of Other Production Costs

The 1987 level was estimated for other production costs in the light of the foregoing trends found for the representative items.

Payment for technical assistance was envisaged with fees payable at rates prevailing in 1987.

12.3.2 Operating Cost of Corrugating Medium Manufacturing Plant

(1) Cost of Raw Materials

The cost to cover raw materials comprises timber dues, and reforestation reserve. (No blending of imported softwood pulp required for this product.)

– Timber dues

The annual timber dues are stipulated in the contract for felling authorization

to be Sc.15 per unit volume (m^3) felled, and Sc.25 per unit surface (ha) deforested.

— Reforestation reserve

The cost of reforestation per unit forest volume (m^3) at maturity is calculated from the total wood volume requirement (reforestation requirement) during the project life, and the total expenditure required during the same period for implementing the reforestation schedule described in Appendix 3 "Recommendations on Reforestation", all adjusted to 1987 price level.

This reforestation cost is found to amount to US.\$3.5 per cubic meter of forest volume at maturity.

In the analysis, the above cost is presumed to be reserved in advance in proportion to the yearly wood volume requirement.

Appropriation from year to year of expected expenditures for reforestation, since the expenditures that would be actually incurred in the reforestation work are likely to be influenced considerably by the results of trial plantation, and thus cannot be predicted in advance to any reliable accuracy.

— Annual raw material requirement and cost

The annual requirement of raw material, derived from the foregoing data and those given in Chapter 8, are presented in Tables 12-43 and 44, together with the relevant costs.

(2) Costs of Auxiliary Materials

The auxiliary materials comprise chemicals, fuel and other auxiliary materials.

Table 12-45 gives the requirements per ton of product, together with their unit prices, while the total annual consumption and expenditures for their procurement are listed in Tables 12-46 and -47, calculated from the data contained in Chapter 6.

Table 12-43. Annual Requirement and Cost of Raw Materials – Case “A”

(Cost unit: US.\$1,000)

Item	1st. year (1987)		2nd. year (1988)		3rd. year and after	
	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost
Timber due						
For roundwood volume (m ³)	123,011	56	179,785	82	189,247	86
For logging area (ha)	965	0.1	1,411	0.1	1,485	0.1
Reserved cash for reforestation		431		629		662
Total		487.1		711.1		748.1

Table 12-44. Annual Requirement and Cost of Raw Materials – Case “B”

(Cost unit: US.\$1,000)

Item	1st. year (1988)		2nd. year (1989)		3rd. year (1990)		4th. year and after	
	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost
Timber due								
For roundwood volume (m ³)	113,548	52	160,860	73	179,785	82	189,247	86
For logging area (ha)	891	0.1	1,262	0.1	1,411	0.1	1,485	0.1
Reserved cash for reforestation		397		563		629		662
Total		449.1		636.1		711.1		748.1

**Table 12-45. Unit Consumption and Price of Auxiliary Materials
(Corrugating Medium)**

Item	Unit Consumption	Unit Price
Chemicals		
Sodium sulfite	54 kg/paper ton	US.\$531/ton
Sodium carbonate	13.5 kg/paper ton	US.\$430/ton
Calcium hydroxide	140 kg/paper ton	US.\$236/ton
Miscellaneous chemicals		20% of the cost of all above chemicals
Fuels		
Fuel oil	40 ton a day	US.\$95/ton
Other fuels		US.\$1/day
Sub-materials (Operating supplies)		US.\$10/paper ton

Table 12-46. Annual Requirement and Costs of Auxiliary Materials – Case “A”

(Unit of cost: US.\$1,000)

(Unit of quantity: tons)

Item	1st. year (1987)		2nd. year (1988)		3rd. year and after	
	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost
Sodium sulfite	1,390	738	2,031	1,078	2,138	1,135
Sodium carbonate	348	150	508	218	535	230
Calcium hydroxide	3,604	851	5,267	1,243	5,544	1,308
Miscellaneous chemicals		344		503		529
Fuel oil	8,580	815	12,540	1,191	13,200	1,254
Other fuels		215		314		330
Other auxiliary materials		257		376		396
Total		3,370		4,923		5,182

Table 12-47. Annual Requirement and Costs of Auxiliary Materials – Case “B”

(Unit of cost: US.\$1,000)

(Unit of quantity: tons)

Items	1st. year (1988)		2nd. year (1989)		3rd. year (1990)		4th. year and after	
	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost
Sodium sulfite	1,283	681	1,817	965	2,031	1,078	2,183	1,135
Sodium carbonate	321	138	455	196	508	218	535	230
Calcium hydroxide	3,326	785	4,712	1,112	5,267	1,243	5,544	1,308
Miscellaneous chemicals		318		450		503		529
Fuel oil	7,920	752	11,220	1,066	12,540	1,191	13,200	1,254
Other fuels		198		281		314		330
Other auxiliary materials		238		337		376		396
Total		3,110		4,407		4,923		5,182

(3) Personnel Expenses

The envisaged plant organization is as described in Chapter 10.

The annual payroll expenditures comprise salaries and incentive payments, social insurance contributions and other ancillary personnel expenses, and as such, have been given by the Ecuadorian authorities for different grades of personnel for 1982, which are reproduced in Table 12-48.

This Table also contains the number of employees of each grade envisaged to be employed in the plant.

The total annual personnel expenditures are adjusted to 1987 cost level in Table 12-49.

Table 12-48. Annual Labor Payroll Costs (Corrugating Medium) – 1982 Price Level

(Unit: US.\$)

Class	Title	Number of Employees		Cost in 1982	
		Forest Operation	Mill Operation	Unit Cost	Total
1A	Manager "A"	—	1	32,558	32,558
1B	Manager "B"	1	3	24,630	98,520
2	Sec. Manager	2	9	20,667	227,337
3A	Staff "A"	7	15	4,385	96,470
3B	Staff "B"	27	44	3,959	281,089
4A	Foremen	11	31	4,385	184,170
4B	Operator "A"	66	96	3,959	641,358
4C	Operator "B"	33	144	3,352	593,304
5	Temporary Labor	58	200	2,544	656,352
Total		205	543	—	2,811,158

Table 12-49. Annual Labor Payroll Costs (Corrugating Medium) – 1987 Price Level

(Unit: US.\$)

Class	Title	Number of Employees		Cost in 1987	
		Forest Operation	Mill Operation	Unit Price	Total
1A	Manager "A"	—	1	64,074	64,074
1B	Manager "B"	1	3	48,472	193,888
2	Sec. Manager	2	9	40,673	447,403
3A	Staff "A"	7	15	8,630	189,860
3B	Staff "B"	27	44	7,791	553,161
4A	Foremen	11	31	8,630	362,460
4B	Operator "A"	66	96	7,791	1,262,142
4C	Operator "B"	33	144	6,597	1,167,669
5	Temporary Labor	58	200	5,007	1,291,806
Total		205	543	—	5,532,463

(4) Plant Management Expenses

Plant management expenses comprise expenditures for indirect personnel, insurance, and general expenses (stationery, communication, travel, office maintenance, etc.).

– Indirect personnel expenses

Expenses for indirect personnel are in the present analysis, accounted for in the personnel expenses item, so that in the present instance, indirect personnel expenses amount to nil.

– Insurance

Insurance to cover the fixed assets of the plant are envisaged to cost 0.8% of the plant construction expenses.

– General expenses

General expenses cover office stationery, communication, maintenance of office and office equipment, etc., and are evaluated at 3.0% of the fixed production costs.

– Total plant management expenses

The values of the expenditures cited in the above are presented in Tables 12-50 and -51.

(5) Expenses for Technical Assistance by Foreign Personnel

The technical assistance by foreign personnel, as scheduled in Chapter 10, is accounted for with the fees envisaged to be payable at the rates prevailing in 1987.

Tables 12-52 and -53 list the numbers of technical assistants together with the expenses incurred for their assistance.

Table 12-50. Plant Management Expenses – Case “A”

Item	Cost (US.\$1,000)	Remarks
1. Personnel expenses	–	Included in annual payroll cost
2. Insurance	561	Damage insurance on the fixed properties (0.8% of the plant cost)
3. General expenses	216	Such as cost of stationery, communication, travel and maintenance of office and office facilities.
Total cost	777	

Table 12-51. Plant Management Expenses – Case “B”

Item	Cost (US.\$1,000)	Remarks
1. Personnel expenses	–	Included in annual payroll cost
2. Insurance	658	Damage insurance on the fixed properties (0.8% of the plant cost)
3. General expenses	216	Such as cost of stationery, communication, travel and maintenance of office and office facilities.
Total cost	874	

Table 12-52. Annual Expenses for Technical Assistance by Foreign Personnel – Case “A”

(Cost unit: US.\$1,000)

Item	1st. year (1987)		2nd. year (1988)		3rd. year (1989)		4th. year and after	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Manager	1	164	1	164	–	–		
Engineers	6	876	4	584	3	438	2	292
Technicians	13	1,664	7	896	5	640	2	256
Total	20	2,704	12	1,644	8	1,078	4	548

Table 12-53. Annual Expenses for Technical Assistance by Foreign Personnel – Case “B”

(Cost unit: US.\$1,000)

Item	1st. year (1988)		2nd. year (1989)		3rd. year (1990)		4th. year and after	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Manager	1	164	1	164	–	–		
Engineers	6	876	4	584	3	438	2	292
Technicians	13	1,664	7	896	5	640	2	256
Total	20	2,704	12	1,644	8	1,078	4	548

(6) Repair and Maintenance

The expenses incurred in repairing worn, corroded or eroded parts of the plant equipment, and in purchasing replacement parts for maintenance are estimated in the present analysis to represent:

- For pulpwood supply equipment
10% of the C.I.F price of the equipment.
- For pulp/paper production equipment
3% of the C.I.F price of the equipment.

The actual amounts represented by the above percentages are contained in Tables 12-54 and -55.

(7) Total Production Cost

All the expenditures cited in Section 12.3.2 are recapitulated and summarized in Tables 12-54 and -55.

12.3.3 Operating Cost of Printing/Writing Paper Manufacturing Plant

(1) Cost of Raw Materials

The cost to cover raw materials comprises timber dues, reforestation reserve and imported bleached softwood pulp for blending.

- Timber dues

The annual timber dues are stipulated in the contract for felling authorization to be Sc.15 per unit volume (m³) felled, and Sc.25 per unit surface (ha) deforested.

- Reforestation reserve

This reforestation cost is found to amount to US.\$3.5 per cubic meter of forest volume at maturity.

Table 12-54. Total Operating Cost -- Case "A"

(Unit: US.\$ 1,000)

Item	1st. year (1987)	2nd. year (1988)	3rd. year (1989)	4th. year (1990)	5th. year and after
Variable Cost					
Raw materials	487	711	748	748	748
Auxillary materials	3,370	4,923	5,182	5,182	5,182
Sub-total	3,857	5,634	5,930	5,930	5,930
Fixed Cost					
Labor cost	5,532	5,532	5,532	5,532	5,532
Management cost	777	777	777	777	777
Repair and maintenance cost	1,679	1,679	1,679	1,679	1,679
Sub-total	7,988	7,988	7,988	7,988	7,988
Technical Assistance	2,704	1,644	1,078	548	—
Total Operating Cost	14,549	15,262	14,996	14,466	13,918

Table 12-55. Total Operating Cost -- Case "B"

(Unit: US.\$ 1,000)

Item	1st. year (1988)	2nd. year (1989)	3rd. year (1990)	4th. year (1991)	5th. year and after
Variable Cost					
Raw materials	449	636	711	748	748
Auxiliary materials	3,110	4,407	4,923	5,182	5,182
Sub-total	3,559	5,043	5,634	5,930	5,930
Fixed Cost					
Labor cost	5,532	5,532	5,532	5,532	5,532
Management cost	874	874	874	874	874
Repair and maintenance cost	1,679	1,679	1,679	1,679	1,679
Sub-total	8,085	8,085	8,085	8,085	8,085
Technical Assistance	2,704	1,644	1,078	548	—
Total Operating Cost	14,348	14,772	14,797	14,563	14,015

In the analysis, the above cost is presumed to be reserved in advance in proportion to the yearly wood volume requirement.

Appropriation from year to year of expected expenditures for reforestation, since the expenditures that would be actually incurred in the reforestation work are likely to be influenced considerably by the results of trial plantation, and thus cannot be predicted in advance to any reliable accuracy.

– Cost of imported softwood pulp

The cost to purchase imported bleached softwood pulp for blending with the locally procured pulp is calculated using the unit price cited in above and the quantity requirement indicated in Chapter 6.

– Annual raw material requirement and cost

The annual requirement of raw material, derived from the foregoing data and those given in Chapter 6, are presented in Tables 12-56 and -57, together with the relevant costs.

Table 12-56. Annual Requirement and Cost of Raw Materials – Case “C”

(Cost unit: US.\$1,000)

Item	1st. year (1987)		2nd. year (1988)		3rd. year and after	
	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost
Timber due						
For roundwood volume (m ³)	123,011	56	179,785	82	189,247	86
For logging area (ha)	965	0.1	1,411	0.1	1,485	0.1
Imported softwood pulp (ton)	1,641	2,025	2,398	2,959	2,524	3,115
Reserved cash for reforestation		431		629		662
Total		2,512.1		3,670.1		3,863.1

Table 12-57. Annual Requirement and Cost of Raw Materials – Case “D”

(Cost unit: US.\$1,000)

Item	1st. year (1988)		2nd. year (1989)		3rd. year (1990)		4th. year and after	
	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost
Timber due								
For roundwood volume (m ³)	113,548	52	160,860	73	179,785	82	189,247	86
For logging area (ha)	891	0.1	1,262	0.1	1,411	0.1	1,485	0.1
Imported softwood pulp (ton)	1,514	1,868	2,145	2,647	2,398	2,959	2,524	3,115
Reserved cash for reforestation		397		563		629		662
Total		2,317.1		3,283.1		3,670.1		3,863.1

(2) Cost of Auxiliary Materials

The auxiliary materials comprise chemicals, fuel and other auxiliary materials.

Table 12-58 gives the requirements per ton of product, together with their unit prices, while the total annual consumption and expenditures for their procurement are listed in Tables 12-59 and -60, calculated from the data contained in Chapter 6.

(3) Personnel Expenses

The envisaged plant organization is as described in Chapter 10.

The annual payroll expenditures comprise salaries and incentive payments, social insurance contributions and other ancillary personnel expenses, and as such, have been given by the Ecuadorian authorities for different grades of personnel for 1982, which are reproduced in Table 12-61.

This Table also contains the number of employees of each grade envisaged to be employed in the plant.

The total annual personnel expenditures are adjusted to 1987 cost level in Table 12-62.

**Table 12-58. Unit Consumption and Price of Auxiliary Materials
(Printing/Writing Paper)**

Item	Unit Consumption	Unit Price
Chemicals		
Sodium sulfite	89 kg/paper ton	US.\$327/ton
Sodium carbonate	35 kg/paper ton	US.\$58/ton
Sodium chloride	139 kg/paper ton	US.\$236/ton
Clay	93 kg/paper ton	US.\$351/ton
Sizing agent	10 kg/paper ton	US.\$3,760/ton
Alum	30 kg/paper ton	US.\$213/ton
Calcium hydroxide	300 kg/paper ton	US.\$236/ton
Miscellaneous chemicals		10% of the cost of all above chemicals
Fuels		
Fuel oil	18.5 ton a day	US.\$95/ton
Other fuels		US.\$1/day
Sub-materials (Operating supplies)		US.\$21/paper ton

Table 12-59. Annual Requirement and Costs of Auxiliary Materials – Case “C”

(Unit of cost: US.\$1,000)

(Unit of quantity: tons)

Item	1st. year (1987)		2nd. year (1988)		3rd. year	
	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost
Sodium sulfite	1,182	387	1,727	565	1,818	594
Sodium carbonate	472	27	690	40	726	42
Sodium chloride	1,845	435	2,696	636	2,838	670
Clay	1,394	489	2,038	715	2,145	753
Sizing agent	150	564	219	823	231	869
Alum	450	96	658	140	693	148
Calcium hydroxide	4,505	1,063	6,584	1,554	6,930	1,635
Miscellaneous chemicals		306		447		471
Fuel oil	6,760	642	9,880	939	10,400	988
Other fuels		215		314		330
Other auxiliary materials		315		461		485
Total		4,539		6,634		6,985

Table 12-60. Annual Requirement and Costs of Auxiliary Materials – Case “D”

(Unit of cost: US.\$1,000)

(Unit of quantity: tons)

Item	1st. year (1988)		2nd. year (1989)		3rd. year (1990)		4th. year and after	
	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost	Q'ty	Cost
Sodium sulfite	1,091	357	1,545	505	1,727	565	1,818	594
Sodium carbonate	436	25	617	36	690	40	726	42
Sodium chloride	1,703	402	2,412	569	2,696	636	2,838	670
Clay	1,287	452	1,823	640	2,038	715	2,145	753
Sizing agent	139	523	196	737	219	823	231	869
Alum	416	89	589	125	658	140	693	148
Calcium hydroxide	4,158	981	5,891	1,390	6,584	1,554	6,930	1,635
Miscellaneous chemicals		283		400		447		471
Fuel oil	6,240	593	8,840	840	9,880	939	10,400	988
Other fuels		198		281	.	314		330
Other auxiliary materials		291		412		461		485
Total		4,194		5,935		6,634		6,985

Table 12-61. Annual Labor Payroll Costs (Printing/Writing Paper) – 1982 Price Level

(Unit: US.\$)

Class	Title	Number of Employees		Cost in 1982	
		Forest Operation	Mill Operation	Unit Cost	Total
1A	Manager "A"	—	1	32,558	32,558
1B	Manager "B"	1	3	24,630	98,520
2	Sec. Manager	2	9	20,667	227,337
3A	Staff "A"	7	15	4,385	96,470
3B	Staff "B"	27	44	3,959	281,089
4A	Foremen	11	38	4,385	214,865
4B	Operator "A"	66	148	3,959	847,226
4C	Operator "B"	33	221	3,352	851,408
5	Temporary Labor	58	200	2,544	656,352
Total		205	679	—	3,305,825

Table 12-62. Annual Labor Payroll Costs (Printing/Writing Paper) – 1987 Price Level

(Unit: US.\$)

Class	Title	Number of Employees		Cost in 1987	
		Forest Operation	Mill Operation	Unit Cost	Total
1A	Manager "A"	—	1	64,074	64,074
1B	Manager "B"	1	3	48,472	193,888
2	Sec. Manager	2	9	40,673	447,403
3A	Staff "A"	7	15	8,630	189,860
3B	Staff "B"	27	44	7,791	553,161
4A	Foremen	11	38	8,630	422,870
4B	Operator "A"	66	148	7,791	1,667,274
4C	Operator "B"	33	221	6,597	1,675,638
5	Temporary Labor	58	200	5,007	1,291,806
Total		205	679	—	6,505,974

(4) Plant Management Expenses

Plant management expenses comprise expenditures for indirect personnel, insurance, and general expenses (stationery, communication, travel, office maintenance, etc.).

– Indirect personnel expenses

Expenses for indirect personnel are in the present analysis, accounted for in the personnel expenses item, so that in the present instance, indirect personnel expenses amount to nil.

– Insurance

Insurance to cover the fixed assets of the plant are envisaged to cost 0.8% of the plant construction expenses.

– General expenses

General expenses cover office stationery, communication, maintenance of office and office equipment, etc., and are evaluated at 3.0% of the fixed production costs.

– Total plant management expenses

The value of the expenditures cited in the above are presented in Tables 12-63 and 64.

Table 12-63. Plant Management Expenses – Case “C”

Item	Cost (US.\$1,000)	Remarks
1. Personnel expenses	–	Included in annual payroll cost
2. Insurance	656	Damage insurance on the fixed properties (0.8% of the plant cost)
3. General expenses	250	Such as cost of stationery, communication, travel and maintenance of office and office facilities.
Total cost	906	

Table 12-64. Plant Management Expenses – Case “D”

Item	Cost (US.\$1,000)	Remarks
1. Personnel expenses	–	Included in annual payroll cost
2. Insurance	720	Damage insurance on the fixed properties (0.8% of the plant cost)
3. General expenses	250	Such as cost of stationery, communication, travel and maintenance of office and office facilities
Total cost	970	

(5) Expenses for Technical Assistance by Foreign Personnel

The technical assistance by foreign personnel, as scheduled in Chapter 10, is accounted for with the fees envisaged to be payable at the rates prevailing in 1987.

Table 12-65 and -66 list the numbers of technical assistants together with the expenses incurred for their assistance.

(6) Repair and Maintenance

The expenses incurred in repairing worn, corroded or eroded parts of the plant equipment, and in purchasing replacement parts for maintenance are estimated in the present analysis to represent:

- For pulpwood supply equipment
10% of the C.I.F price of the equipment.

- For pulp/paper production equipment
3% of the C.I.F price of the equipment.

The actual amounts represented by the above percentages are contained in Tables 12-67 and -68.

(7) Total Production Cost

All the expenditures cited in Section 12.3.3 are recapitulated and summarized in Tables 12-67 and -68.

Table 12-65. Annual Expenses for Technical Assistance by Foreign Personnel – Case “C”

(Cost unit: US.\$1,000)

Item	1st. year (1987)		2nd. year (1988)		3rd. year (1989)		4th. year and after	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Manager	1	164	1	164	—	—	—	—
Engineers	7	1,022	4	584	3	438	2	292
Technicians	15	1,920	9	1,152	5	640	3	384
Total	23	3,106	14	1,900	8	1,078	5	676

Table 12-66. Annual Expenses for Technical Assistance by Foreign Personnel – Case “D”

(Cost unit: US.\$1,000)

Item	1st. year (1988)		2nd. year (1989)		3rd. year (1990)		4th. year and after	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Manager	1	164	1	164	—	—	—	—
Engineers	7	1,022	4	584	3	438	2	292
Technicians	15	1,920	9	1,152	5	640	3	384
Total	23	3,106	14	1,900	8	1,078	5	676

Table 12-67. Total Operating Cost – Case “C”

(Unit: US.\$ 1,000)

Item	1st. year (1987)	2nd. year (1988)	3rd. year (1989)	4th. year (1990)	5th. year and after
Variable cost					
Raw materials	2,512	3,670	3,863	3,863	3,863
Auxiliary materials	4,539	6,634	6,985	6,985	6,985
Sub-total	7,051	10,304	10,848	10,848	10,848
Fixed cost					
Labor cost	6,506	6,506	6,506	6,506	6,506
Management cost	906	906	906	906	906
Repair and maintenance cost	1,823	1,823	1,823	1,823	1,823
Sub-total	9,235	9,235	9,235	9,235	9,235
Technical assistance	3,016	1,900	1,078	676	–
Total Operating Cost	19,302	20,439	21,161	20,759	20,083

Table 12-68. Total Operating Cost – Case “D”

(Unit: US.\$ 1,000)

Item	1st. year (1988)	2nd. year (1989)	3rd. year (1990)	4th. year (1991)	5th. year and after
Variable cost					
Raw materials	2,317	3,283	3,670	3,863	3,863
Auxiliary materials	4,194	5,935	6,634	6,985	6,985
Sub-total	6,511	9,218	10,304	10,848	8,141
Fixed cost					
Labor cost	6,506	6,506	6,506	6,506	6,506
Management cost	970	970	970	970	970
Repair and maintenance cost	1,823	1,823	1,823	1,823	1,823
Sub-total	9,299	9,299	9,299	9,299	9,299
Technical assistance	3,016	1,900	1,078	676	–
Total Operating Cost	18,826	20,417	20,681	20,823	20,147

12.4 Schedules of Product Sales

This Section covers the schedules of product sales for the 4 Cases considered. The products envisaged for respective Cases are as follows:

– Case “A”

Corrugating medium	Annual production of 39,600 tons
Sawlog and plywood	Annual production of 47,312 m ³

– Case “B”

Same as Case “A”

– Case “C”

Printing/writing paper	Annual production of 23,100 tons
Sawlog and plywood	Annual production of 47,312 m ³

– Case “D”

Same as Case “C”

As stated in Chapter 2, all the products are envisaged to be sold in the domestic market.

The principal product – whether corrugating medium or printing/writing paper – is to substitute imported goods in a market that is expected to present a demand exceeding the supply ensured by the production of the projected Plant.

It is thus expected that the entirety of products manufactured by the plant will find sufficient outlets without disturbing the equilibrium of supply and demand in the domestic market and hence without affecting the domestic market price. These are the basic principal governing the scheduling of product sales.

The annual sales thus scheduled are presented in Table 12-69.

Table 12-69. Schedules of Annual Sales for Four Cases

(Unit: US.\$1,000)

	1st. year	2nd. year	3rd. year	4th. year	5th. year and after
Case "A"					
Corrugating medium	16,552	24,911	26,517	26,572	26,572
Sawlog/plywood materials	1,444	2,173	2,313	2,318	2,318
Less sales expenses	370	557	593	594	594
Total Sales Revenue	17,626	26,527	28,237	28,296	28,296
Case "B"					
Corrugating medium	15,279	22,309	25,132	26,517	26,572
Sawlog/plywood materials	1,333	1,946	2,193	2,313	2,318
Less sales expenses	342	499	562	593	594
Total Sales Revenue	16,270	23,756	26,763	28,237	28,296
Case "C"					
Printing/writing paper	20,217	30,427	32,388	32,456	32,456
Sawlog/plywood materials	1,444	2,173	2,313	2,318	2,318
Less sales expenses	216	325	346	347	347
Total Sales Revenue	21,445	32,275	34,355	34,427	34,427
Case "D"					
Printing/writing paper	18,661	27,249	30,698	32,388	32,456
Sawlog/plywood materials	1,333	1,946	2,193	2,313	2,318
Less sales revenue	199	291	328	346	347
Total Sales Revenue	19,795	28,904	32,563	34,355	34,427

12.4.1 Price Level for the Sale of Products

The price level adopted in this final financial analysis is the same as that applied to the operating cost, i.e. held constant at the level estimated for 1987, the first year of operation.

(1) 1987 Product Price Level – Corrugating Medium

The selling price of corrugating medium in Ecuador 1982 is, as cited in Chapter 2 "Market", US.\$ 430 per ton (C.I.F Guayaquil).

Statistics published by F.A.O indicated that the price of corrugating medium has risen in the international market at an average annual rate of 5.8% during the period of 6 years between 1976 and 1982. Within Ecuador, has risen at an average annual rate of 9.3% during the 6 years between 1974 and 1980 (BOLETING ANUARIO of the B.C.E).

For the future, F.A.O's statistical data forecast an increasing trend of 16.7% annually between 1983 and 1985. This figure, however, bases on the assumption that the balance of supply and demand is likely to be disturbed, in the absence of any project for establishing new paper mills within the next few years on world-wide scale such as to cope with the rising demand.

At this moment, it must be admitted that there exist no definite projects for creating such new mills to balance increasing demands, and the possibility of a sharp rise in the international paper market being occasioned by insufficient supply cannot be denied, and inducing the creation of new mills to maintain or restore the balance.

Such consideration would make it appear unrealistic to estimate the paper market price for 1987 based simply on the F.A.O figure of 17.6%. It should be more prudent to take due account of past price trends recorded both in the domestic and international markets, and this has led to the adoption in the present instance of 9.3% as annual rate of rise of corrugating medium price in Ecuador between 1982 (US.\$ 430/ton) and 1987.

(2) 1987 Product Price Level – Printing/writing Paper

Again referring to past trends and future forecast (the latter given by Data Resources

Corporation, U.S.A) of printing/writing paper prices, roughly the same tendency is observed as in the case of corrugating medium, except that the rate of price increase in the international market has been about 1.2 points higher for printing/writing paper than for corrugating medium.

As annual price rise higher by 1.2 points above that adopted for corrugating medium, i.e. $9.3 + 1.2 = 10.5\%$, has been applied for deriving the 1987 price level of printing/writing paper from that of 1982 given in Chapter 2 (US.\$ 851/ton).

(2) 1987 Product Price Level – Sawlog and Plywood Materials

As indicated in Chapter 2, all sawlog and plywood materials to be produced by the projected Plant is envisaged to serve the domestic market, where no competition with imported material is conceivable in this case, estimation of future price level should be based, not on international price, but purely on trends of the domestic market.

The BOLETIN ANUARIO cites a figure of 11.9% for the average annual rate of rise of the price index of sawlog in Ecuador between 1987 and 1980.

The volume of future domestic demands for both sawlog and plywood materials is envisaged to be ample for absorbing the entire volume to be produced under this Project, so that entry into the market of the products should in no way affect the price level.

Consequently, the price levels of sawlog and plywood materials in 1987 are derived from those of 1982 given in Chapter 2 (US.\$ 28/m³) assuming the past trend of to be maintained during the intervening period.

12.4.2 Running Stock

In this financial analysis, it is assumed to maintain a running stock corresponding to 0.5 month production by progressively increasing the volume of stock in keeping with the rise in plant utilization factor during the initial years after commissioning.

The salable volume will thus be the quantity produce less the increment of stock volume.

12.4.3 Product Marketing Cost

This cost covers expenses for bringing the products to be produced by the projected Plant from plant site to Guayaquil for delivery at port. This cost must be deducted from the selling price to derive the exfactory price, which should serve as basis for balancing against the corresponding operating cost to evaluate the profitability fo this Project.

In this case, the product marketing cost is evaluated at US.\$ 15 per ton.

Note: Sawlog and plywood materials are envisaged to be marketed within the San Lorenzo District, so that the exfactory price adopted in the present analysis do not involve any marketing cost.

12.4.4 Sales Schedule for Corrugating Medium

The schedule for selling corrugating medium is based on the program of plant operation given in Chapter 10, and with account taken of the foregoing conditions governing sales.

The resulting schedule is presented in Tables 12-70 and -71.

Table 12-70. Production and Sales Schedule – Case “A”

(Unit: US.\$ 1,000)

Item	1st. year (1987)	2nd. year (1988)	3rd. year (1989)	4th. year and after
Production				
Corrugating medium (tons)	25,740	37,629	39,600	39,600
Sawlog and plywood (m ³)	30,753	44,946	47,312	47,312
Production rate (%)	65	95	100	100
Sales, less running stock				
Corrugating medium (tons)	24,667	37,125	39,518	39,600
Sawlog and plywood (m ³)	29,472	44,355	47,213	47,312
Sales price				
Corrugating medium (US.\$/ton)			671	
Sawlog and plywood (US.\$/m ³)			49	
Sales revenue (US.\$ 1,000)				
Corrugating medium	16,552	24,911	26,517	26,572
Sawlog and plywood	1,444	2,173	2,313	2,318
Total	17,996	27,084	28,830	28,890
Marketing cost	370	557	593	594
Net proceeds	17,626	26,527	28,237	28,296

Table 12-71. Production and Sales Schedule – Case “B”

(Unit: US.\$ 1,000)

Item	1st. year (1988)	2nd. year (1989)	3rd. year (1990)	4th. year (1991)	5th. year and after
Production					
Corrugating medium (tons)	23,760	33,660	37,620	39,600	39,600
Sawlog and plywood (m ³)	28,387	40,215	44,946	47,312	47,312
Production rate (%)	60	85	95	100	100
Sales, less running stock					
Corrugating medium (tons)	22,770	33,247	37,455	39,518	39,600
Sawlog and Plywood (m ³)	27,204	39,722	44,750	47,213	47,312
Sales price					
Corrugating medium (US.\$/ton)			671		
Sawlog and plywood (US.\$/m ³)			49		
Sales revenue (US.\$ 1,000)					
Corrugating Medium	15,279	22,309	25,132	26,517	26,572
Sawlog and plywood	1,333	1,946	2,193	2,313	2,318
Total	16,612	24,255	27,325	28,830	28,890
Marketing cost	342	499	562	593	594
Net proceeds	16,270	23,756	26,763	28,237	28,296

12.4.4 Sales Schedule for Printing/Writing Paper

The schedule for selling printing/writing paper is based on the program of plant operation given in Chapter 10, and with account taken of the foregoing conditions governing sales.

The resulting schedule is presented in Tables 12-72 and 73.

Table 12-72. Production and Sales Schedule -- Case "C"

(Unit: US.\$ 1,000)

Item	1st. year (1987)	2nd. year (1988)	3rd. year (1989)	4th. year and after
Production				
Printing/writing paper (ton)	15,015	21,945	23,100	23,100
Sawlog and plywood (m ³)	30,753	44,946	47,312	47,312
Production rate (%)	65	95	100	100
Sales, less running stock				
Printing/writing paper (ton)	14,389	21,656	23,052	23,100
Sawlog and plywood (m ³)	29,472	44,355	47,213	47,312
Sales price				
Printing/writing paper (US.\$/ton)			1,405	
Sawlog and plywood (US.\$/m ³)			49	
Sales revenue (US.\$ 1,000)				
Printing/writing paper	20,217	30,427	32,388	32,456
Sawlog and plywood	1,444	2,173	2,313	2,318
Total	21,661	32,600	34,701	34,774
Marketing cost	216	325	346	347
Net proceeds	21,445	32,275	34,355	34,427

Table 12-73. Production and Sales Schedule -- Case "D"

(Unit: US.\$ 1,000)

Item	1st. year (1988)	2nd. year (1989)	3rd. year (1990)	4th. year (1991)	5th. year and after
Production					
Printing/writing paper (ton)	13,860	19,635	21,945	23,100	23,100
Sawlog and plywood (m ³)	28,387	40,215	44,946	47,312	47,312
Production rate (%)	60	85	95	100	100
Sales, less running stock					
Printing/writing paper (ton)	13,282	19,394	21,849	23,052	23,100
Sawlog and plywood (m ³)	27,204	39,722	44,750	47,213	47,312
Sales price					
Printing/writing paper (US.\$/ton)			1,405		
Sawlog and plywood (US.\$/m ³)			49		
Sales revenue (US.\$ 1,000)					
Printing/writing paper	18,661	27,249	30,698	32,388	32,456
Sawlog and plywood	1,333	1,946	2,193	2,313	2,318
Total	19,994	29,195	32,891	34,701	34,774
Marketing cost	199	291	328	346	347
Net proceeds	19,795	28,904	32,563	34,355	34,427

12.5 Basic Premises Adopted for Financial Analysis

12.5.1 Project Life

For the purpose of this financial analysis, the duration of project life are envisaged to be as set forth for 4 Cases:

Case	Construction period	Operation period
"A"	Jan. 1983 – Dec. 1986	Jan. 1987 – Dec. 2001 (15 years)
"B"	Jan. 1983 – Dec. 1987	Jan. 1988 – Dec. 2002 (15 years)
"C"	Jan. 1983 – Dec. 1986	Jan. 1987 – Dec. 2001 (15 years)
"D"	Jan. 1983 – Dec. 1987	Jan. 1988 – Dec. 2002 (15 years)

12.5.2 Price Levels

(1) Investment Costs

The investment costs have been derived on the assumption that a turn-key, lump-sum contract will be effectuated on July 1, 1984, and that installation and commissioning will be completed on December 31, 1986 in the Case "A" and "C", and on December 31, 1987 in the Case "B" and "D".

(2) Operating Cost and Selling Price

The operating cost and selling price are fixed at the values set for 1987. In other words, these values are set at the price level derived for 1987 beyond which year they are envisaged to remain unchanged throughout the duration of project life.

12.5.3 Business Year

The business year adopted in this financial analysis is January 1 to December 31.

12.5.4 Taxes

(1) Corporate Tax

A rate of 20% on taxable income is envisaged for the corporate tax, exempted, however, during 10 years from commissioning.

(2) Other Taxes

All other taxes (local tax, etc.) are envisaged to be exempted for the duration of project life.

Note: The foregoing conditions are stipulated by the "LEY DE FORMENTO INDUSTRIAL – INCENTIVOS PARA EL DESARROLLO INDUSTRIAL REGIONAL".

12.5.5 Dividend to Workers

In compliance with Ecuadorian law, an amount equivalent to 15% of the profit before tax is envisaged to be distributed to employees as dividend.

12.5.6 Financing

(1) Source of Funds

- 20% of the funds required is envisaged to be financed from funds on hand (capital fund).
- 80% of the funds required is to be financed through long-term loan.

(2) Cost of Replacing

This cost, only entailed after commissioning is envisaged to be funded from earnings.

12.5.7 Terms of Loan

- Interest rate: 11.0%
- Repayment: 10 equal installments payable over 10 years

- Grace period on: 3 years from commissioning
repayment of principal

(2) Short-term loan

- Interest rate: 14.0%
- Repayment: Payable in full in the year following loan

12.5.8 Depreciation

The following conditions applicable to depreciation, as envisaged, based on consultation with the Ecuadorian authorities.

Depreciation and Amortization

Item	Period (Year)	Salvage Value (%)	Method
1. Machinery and equipment of forest operation			
a. Log handling equipment (Skidders, loaders, etc.)	5	0 (Zero)	Straight line
b. Transportation equipment (Trucks, vehicles, etc.)	8	0 (Zero)	Straight line
c. Other facilities	15	0 (Zero)	Straight line
2. Machinery and equipment of mill	15	0 (Zero)	Straight line
3. Civil and building	40	0 (Zero)	Straight line
4. Preoperation cost	10	0 (Zero)	Straight line
5. Interest during construction	10	0 (Zero)	Straight line

Note: Price of land, cost of site preparation and initial working capital are not envisaged to depreciated.

12.5.9 Working Capital

The working capital covering the period of plant operation will comprise current assets and current liabilities as detailed below.

(1) Current assets

- Cash: Fixed production cost covering 1 month
- Accounts receivable: 1/12 of annual proceeds from sales
- Product stock inventory: Production cost covering 0.5 month
- Material stock inventories: Value of raw material to cover 1 month operation; of auxiliary materials to cover 3 months operation
- Stock in process: Negligible value

(2) Current liabilities

- Accounts payable: Value of raw and auxiliary materials to cover 1 month operation

12.6 Results of Financial Analysis

12.6.1 Financial Analysis

The ensuing financial analysis is performed to determine various financial indicators by discounted cash flow method with the foregoing conditions and premises taken into account.

(1) Internal Rate of Return on Investment (I.R.R.O.I)

This computation gives the profitability on the invested capital of the Project. In other words, the profitability is computed assuming the totality of the financed by funds on hand.

Consequently, the conditions particular to the project, such as the terms of loan or the ratio of equity capital to total liability are not reflected on the resulting value. Value of I.R.R.O.I are computed on earnings both before and after tax.

(2) Internal Rate of Return on Equity (I.R.R.O.E)

This computation gives the profitability on the invested equity capital of the Project.

Consequently the resulting value reflect and the conditions particular to the Project, such as the terms of loan and the ratio of equity capital to total liability.

Value of I.R.R.O.E are computed as for I.R.R.O.I, on earning both before and after tax.

(3) Various Financial Statements Derived from Analysis

The financial statements derived from the present financial analysis comprise:

- I.R.R calculations
- Loan repayment schedule for long-term debt
- Income statements
- Funds flow statements
- Balance sheets
- Production and sales schedule
- Production cost statements
- List of profitability and financial indicators

(4) Profitability and Financial Indicators

The profitability and financial indicators computed in the present financial analysis comprise the following:

- After tax profit - to - sales revenue (%)

$$\frac{\text{Net profit after tax}}{\text{Sales revenue}} \times 100$$

- After tax profit - to - shareholder equity (%)

$$\frac{\text{Net profit after tax}}{\text{Share holder's equity (Share capital + Accumulated retained earnings)}} \times 100$$

- Before tax profit - to - investment (%)

$$\frac{\text{Net profit before tax}}{\text{Total capital cost}} \times 100$$

- After tax profit - to - share capital (%)

$$\frac{\text{Net profit after tax}}{\text{Paid-up share capital}} \times 100$$

- Current ratio

$$\frac{\text{Current assets}}{\text{Current liability}}$$

- Quick ratio

$$\frac{\text{Cash + Accounts receivable}}{\text{Current liability}}$$

- Debt service ratio (long-term debt)

$$\frac{\text{Depreciation + Interest + Net profit after tax*}}{\text{Repayment of long-term debt + Interest}}$$

Note*: Net profit before dividends.

- Long-term debt - to - Shareholder equity (%)

$$\frac{\text{Outstanding on long-term debt}}{\text{Share holder's equity}} \times 100$$

(Share capital + Accumulated retained earnings)

- Profit break-even point capacity utilization (%)

$$\frac{(f \times r) / (r - v)}{r_0} \times 100$$

- Cash break-even point sales price

$$\frac{1}{P} \left(v + f + \frac{R - D}{1 - g} \right) \times 1,000^*$$

* 1,000 is multiplied assuming that the monetary unit for unit sales price may be stated as 1/1,000 of annual price and cost. For example, "\$" is used for unit sales price and "\$1,000" is used for annual price and cost.

- Cash break-even point capacity utilization (%)

$$\frac{P}{C} \times \frac{1}{r - v} \times \left(f + \frac{R - D}{1 - g} \right) \times 100$$

Note 1: Legend

- f: Fixed cost
- r: Sales revenue
- v: Variable cost
- r₀: Sales revenue at full capacity utilization
- P: Main product production volume
- R: Amount of loan repayment
- D: Amount of depreciation
- C: Rated capacity
- g: Corporate tax rate

All of the above are for annual values.

Note 2: Supplementary explanation for break-even analysis

“Break-Even” may be broadly divided into “Profit Break-Even” and “Cash Break-Even”. The former is what is usually referred to by the “Break-Even Point” and is the point after which a profit is produced.

The latter is the dividing point between whether or not principal and interest can be repaid; that is, at this point the Debt Service Ratio = 1.0 (Amortization and depreciation + after tax profit = Repayment of principal).

On the other hand, there is a question as to what is a variable for “Break-Even”. In this program, “Rate of utilization of capacity” and “Sales price” are taken as variables and “Capacity utilization Break-Even” and “Unit sales price Break-Even” are calculated.

Variables	Profit break-even	Cash break-even
Capacity utilization	Profit break-even point capacity utilization (%)	Cash break-even point capacity utilization (%)
Unit sales price	Same as production cost	Cash break-even point sales price

12.6.2 Results of Financial Analysis

Results of the foregoing financial analysis are as shown below.

(1) Financial Statements

The financial statements derived in the present financial analysis (annexed to the end of this Chapter) are as follows:

1. Loan Repayment Schedule for Long-term Debt - Case “A”
2. Income Statements - Case “A”
3. Income Statements - Case “A”

4. Funds Flow Statements – Case “A”
5. Funds Flow Statements - Case “A”
6. Balance Sheet - Case “A”
7. Balance Sheet - Case “A”
8. Production and Sales Plan - Case “A”
9. Production and Sales Plan - Case “A”
10. Production Cost Statements - Case “A”
11. Production Cost Statements - Case “A”
12. Profitability and Financial Indicators - Case “A”
13. I.R.R.O.I - Case “A”
14. I.R.R.O.E - Case “A”
15. I.R.R.O.I- Selling price 10% down - Case “A”
16. I.R.R.O.E- Selling price 10% down - Case “A”
17. I.R.R.O.I- Selling price 10% up - Case “A”
18. I.R.R.O.E- Selling price 10% up - Case “A”
19. I.R.R.O.I- Investment cost 10% down - Case “A”
20. I.R.R.O.E- Investment cost 10% down - Case “A”
21. I.R.R.O.I- Investment cost 10% up - Case “A”
22. I.R.R.O.E- Investment cost 10% up - Case “A”
23. I.R.R.O.I- Operating cost 10% down - Case “A”
24. I.R.R.O.E- Operating cost 10% down - Case “A”
25. I.R.R.O.I- Operating cost 10% up - Case “A”
26. I.R.R.O.E- Operating cost 10% up - Case “A”
27. I.R.R.O.E- Long-term debt interest 5% - Case “A”
28. I.R.R.O.E- Long-term debt interest 8% - Case “A”
29. Loan Repayment Schedule for Long-term Debt - Case “C”
30. Income Statements - Case “C”
31. Income Statements - Case “C”
32. Funds Flow Statements - Case “C”
33. Funds Flow Statements - Case “C”
34. Balance Sheet - Case “C”
35. Balance Sheet - Case “C”
36. Production and Sales Plan - Case “C”
37. Production and Sales Plan - Case “C”
38. Production Cost Statements - Case “C”
39. Production Cost Statements - Case “C”
40. Profitability and Financial Indicators - Case “C”

41. I.R.R.O.I - Case "C"
42. I.R.R.O.E - Case "C"
43. I.R.R.O.I - Case "B"
44. I.R.R.O.I - Case "D"
45. Profitability and Financial Indicators - Selling price 10% down - Case "A"
46. Profitability and Financial Indicators - Selling price 10% up - Case "A"
47. Profitability and Financial Indicators - Investment cost 10% down - Case "A"
48. Profitability and Financial Indicators - Investment cost 10% up - Case "A"
49. Profitability and Financial Indicators - Operating cost 10% down - Case "A"
50. Profitability and Financial Indicators - Operating cost 10% up - Case "A"
51. Profitability and Financial Indicators - Long-term debt interest 5% - Case "A"
52. Profitability and Financial Indicators - Long-term debt interest 8% - Case "A"

(2) Summary of Results Obtained from Financial Analysis

A summary of the principal indicators obtained in the financial analysis is given in Table 12-74.

Table 12-74. Summary of Profitability and Financial Indicators

Item	Case "A"	Case "B"	Case "C"	Case "D"
Investment cost (US.\$ 1,000)				
Equity	18,876	22,978	21,979	25,254
Debt	75,503	91,915	87,918	101,015
Total	94,379	114,892	109,897	126,269
I.R.R.O.I (%)				
Before tax	10.62	0.91	6.76	0.00
After tax	10.33	0.91	6.60	0.00
I.R.R.O.E (%)				
After tax	8.16	0.00	0.00	0.00
Payout period (year)				
Before tax	8.19	—	10.33	—
After tax	8.19	—	10.34	—
After tax profit to sales revenue (%)	8.7	—	-3.6	—
After tax profit to shear holder equity (%)	14.2	—	23.7	—
After tax profit to share capital (%)	12.9	—	-5.6	—
Break even point (utilize %)	84.3	—	101.6	—

(3) Sensitivity Analysis

In what follows, an examination is made on the effect on profitability that should be expected of any changes the conditions and premises adopted as basis for the foregoing analysis.

The conditions and premises (parameters) that were varied, and the range adopted of parameter variation from the base values, are as follows:

- Product selling price: Variation of $\pm 10\%$ from the base price.
- Total investment cost: Variation of $\pm 10\%$ from the base figure derived for total investment cost.
- Operating cost: Variation of $\pm 10\%$ from base total sum of variable costs.
- Interest rate on long-term loan: Lowering by 3 and 6 points from the base annual rate of 11% (to 8% and to 5%, respectively).

The sensitivity analysis is conducted solely on the Case "A" (plant to manufacture corrugating medium, constructed by platform-mounted system), which, as it will be seen in the ensuing Section 12.7, is the alternative offering the highest profitability, with a rate of return justifying the investment.

(4) Results of Sensitivity Analysis

The results obtained from the sensitivity analysis are presented in Figs. 12-1 and -2, for I.R.R.O.I and I.R.R.O.E, respectively.

Fig. 12-1. Summary of Sensitivity Analysis
(I.R.R.O.I % to Variation of Financial Parameters)

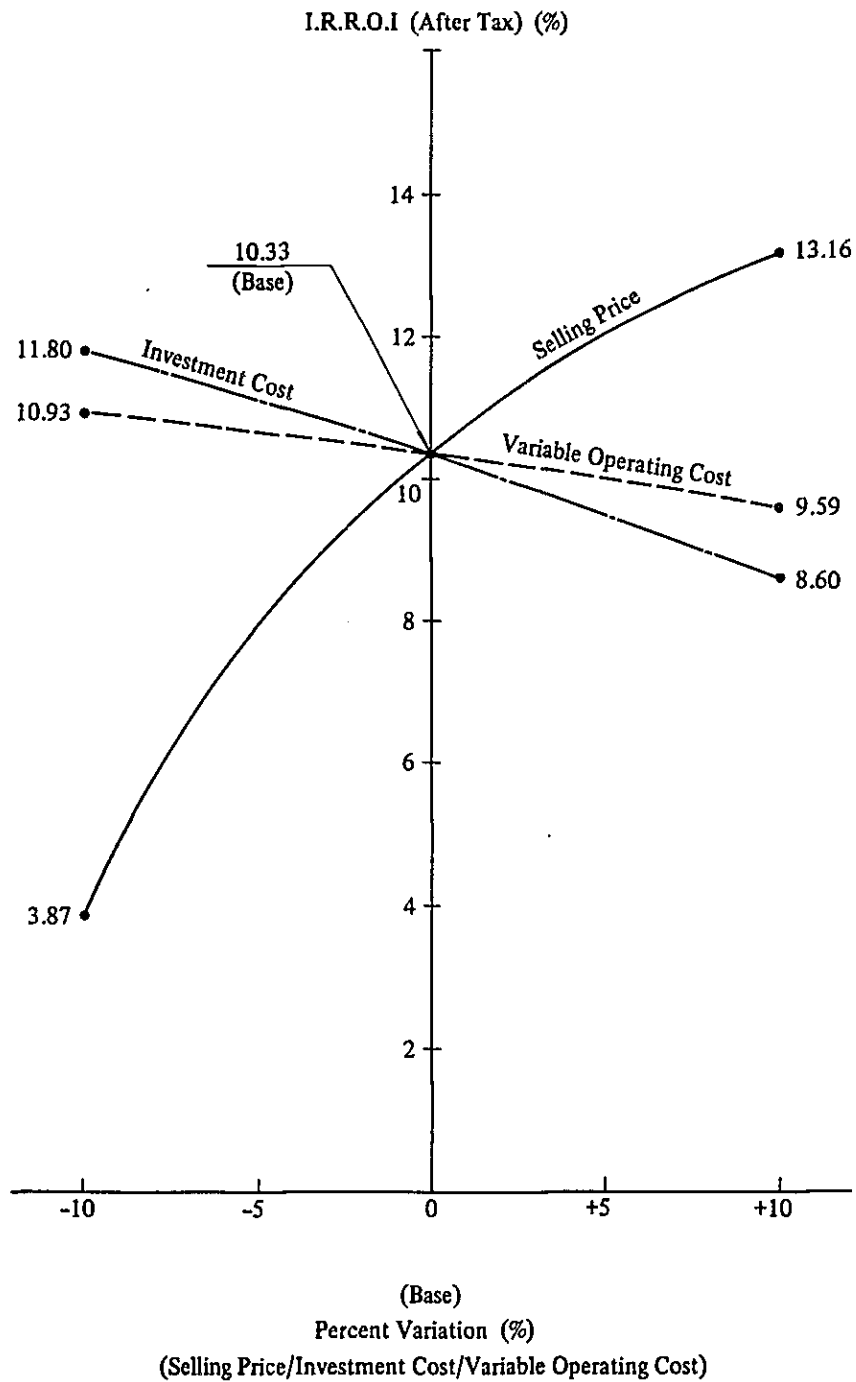
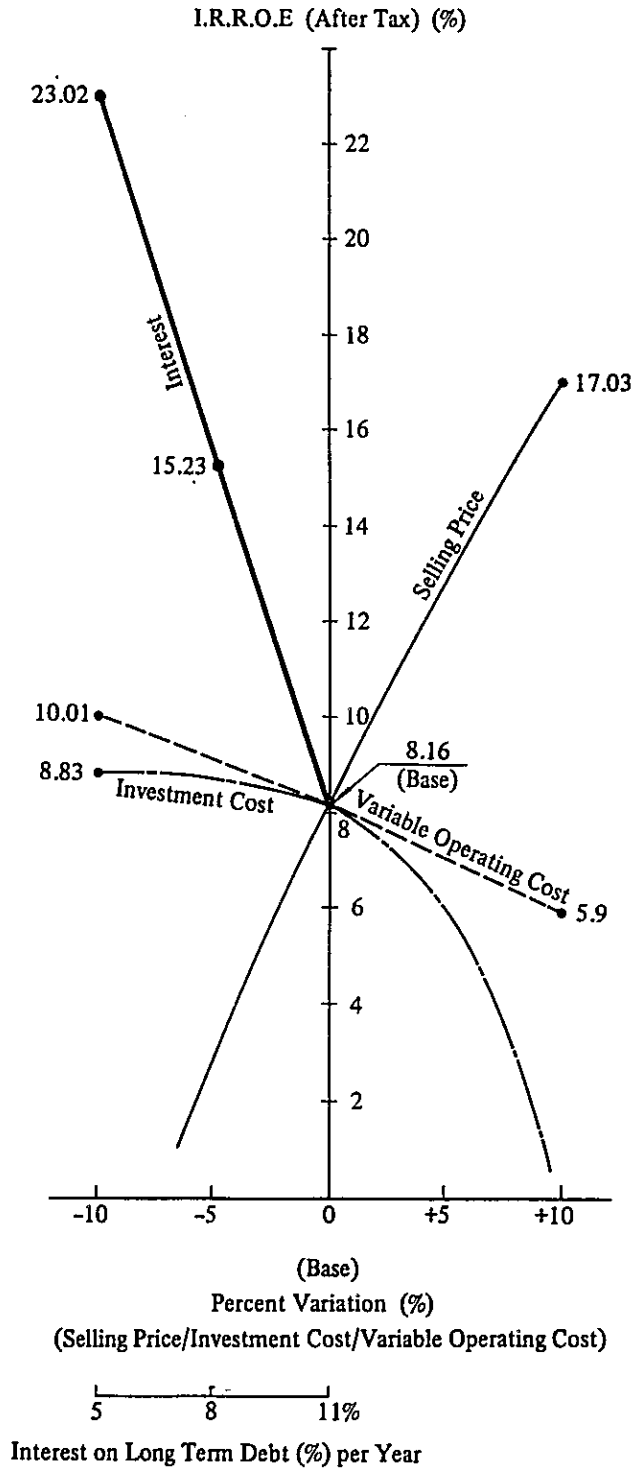


Fig. 12-2. Summary of Sensitivity Analysis

(I.R.R.O.E % to Variation of Financial Parameters)



12.7 Evaluation of Results Obtained from Financial Analysis

In what follows, an overall evaluation is presented on the profitability and financial aspects of the 4 Cases taken up.

12.7.1 Case "A" (Plant to manufacture corrugating medium to be constructed by platform-mounted system)

(1) Financing

The income statement shows losses incurred during 4 years following plant commissioning, but even during this period and throughout the ensuing project life, no loss may be seen from the funds flow statement. The debt service ratio averages 1.32 and the cash break-even point minimum permissible average capacity utilization averages 81.5%. While not representing a particularly comfortable margin, this indicates that loans would be repaid without difficulty.

The current ratio averages 2.31 and the quick ratio 1.68, which are not particularly favorable figures, but should not present a problem.

The foregoing observation from the view point of financing indicates that adoption of Case "A" would permit the project to be pursued – if not with a comfortable margin of profit – at least with its financial position maintained in what should be considered a sound condition.

(2) Profitability

Calculation of the various profit ratios results in the following figures:

- After tax profit-to-sales revenue ratio: 8.7% average
- After tax profit-to-shareholder's equity: 14.2% average ratio
- Before tax profit-to-investment ratio: 2.9% average
- After tax profit-to-share capital ratio: 12.9% average
(Anticipated rate of dividend)

These profit ratios cannot be considered particularly attractive, but when judged on the criterion of whether or not they represent a justifiable return on investment,

it can be affirmed that this Case "A" would promise profit, ratios that justify its implementation.

(3) Internal rates of return (I.R.R)

The I.R.R on investment (I.R.R.O.I) is 10.62% before tax and 10.33 after tax; the investment payback period is 8.19 years.

The I.R.R on equity (I.R.R.O.E) amount to 8.16% after tax; the equity capital payback period is 12.34 years.

This low I.R.R.O.E can plausibly be attributed to a large part played by the terms specified for the long-term debt prescribed in the present financial analysis.

This surmise is substantiated by the foregoing sensitivity analysis, which indicated that lowering the interest rate on long-term debt to 8% and to 5% would have the effect of enhancing the I.R.R.O.E to 15.23% and to 23.02% respectively.

The foregoing analysis thus reveals that implementation of the Project by Case "A" inherently holds promise of justifiable return on investment, but that the very high interest rate of 11% prescribed in the analysis has vitally diminished the I.R.R.O.E.

This interest rate of 11% was adopted in the Project analysis to conform with the current rate of interest applied to loans furnished by the Development Bank of Ecuador. In actual implementation of the Project, however, sources of funds would be widely explored, which should open up possibilities of borrowing at a more advantageous rate of interest.

It can thus be concluded that, for Case "A", the project inherently holds promise of profit justifying its implementation.

(4) Sensitivity analysis

The evaluation presented in what follows derives from the results of sensitivity analysis reproduced in Figs. 12-1 and -2.

– Product selling price

Change in the selling price of marketed product will greatly affect the profitability of the project, as it may be seen from Figs. 12-1 and -2.

Fall in product price from insufficient demand should not be feared, since a stable domestic market- both in volume and in price is assured for the product intended to substitute imported material.

On the other hand, considering the national benefit of saving foreign payments, which is an imported aspect of the present Project, the product price could conceivably be subject to a certain amount of adjustment upward.

It should also be borne in mind that the world market situation is expected in the near future to see demand coming to exceed supply, the resulting trend being toward rising price (cf. F.A.O data).

The foregoing circumstances would indicate little possibility of the selling price lowering appreciably below the adopted base price level and affecting seriously the profitability of the project.

– Total investment cost

The influence exercised on the profitability of the Project by a change in the amount of the required total investment cost is far smaller than that brought by variation to a corresponding extent in the product selling price, and should not vitally affect profitability.

Besides, the total investment cost derived in the present analysis comprises an amply reasonable allowance for contingency and for currency depreciation, so that the results of analysis should be considered quite conservative in this respect.

– Operating cost

In estimating the operating cost, requiring to be purchased have been projected to 1987 by applying the rate of price index rise recorded in Ecuador instead of the appreciably lower rate of inflation foreseen for the countries from which

such chemicals are envisaged to be imported in totality; fuel price has been projected using the rate of rise seen in the Ecuadorian oil export price.

Consequently, it may be considered that there is little possibility of Project profitability being seriously affected by the operating cost rising much more rapidly than expected.

What is much more likely for the operating cost is to prove that it had been overestimated.

– Interest rate on long-term loan

The interest rate on long-term loan is the factor that should exert the greatest inflation on Project profitability.

Considered from other angle, it's influence is such that, unless the long-term loan interest can be definitely established within a reasonably narrow range, Project profitability is not susceptible to meaningful discussion.

It is revealed in Fig. 12-2 that the expected I.R.R.O.E could well exceed 23%, with promise of correspondingly better financial position, if the annual interest could be reduced from 11 to 5%.

12.7.2 Case "C" (Plant to manufacture printing/writing paper to be constructed by platform-mounted system)

(1) Financing

The funds flow statement reveals recourse to short-term loans over the entire Project life, which is indicative of an unsound financial position.

(2) Profitability

The various profit ratios that have been derived all amount to negative, which denies justification of investment.

(3) Internal rates of return (I.R.R)

The I.R.R values are markedly lower than in Case "A".

Even if a more advantageous rate of interest were to be obtained on loans, an attractive value of I.R.R.O.E could not possibly be expected.

The above analysis thus reveals that implementation of the Project by Case "C" inherently holds no promise of justifiable return on investment.

12.7.3 Case "B" and Case "D" (Plants to manufacture corrugating medium and alternatively printing/writing paper to be constructed by conventional piece-meal system)

Neither from financial nor profitability consideration can these cases be judged to justify investment.

12.7.4 Final overall evaluation

The foregoing evaluation of the 4 Cases taken up for consideration leads to the conclusion that the only profitable alternative is the Case "A"

- (1) The overall judgement brought on the Project implemented as prescribed for Case "A" would be that whereas the I.R.R.O.E is not particularly high, the fund and financial position can be expected to be maintained at a more or less sound level, and that the profitability indicated is sufficient for the Project to subsist as an enterprise.
- (2) The most effective measure that could be adopted to enhance the financial position and increase the I.R.R.O.E would be to reconsider the loan interest rate of 11%, which has been adopted as one of the premises for the present analysis.

If funds could be raised on more favorable terms, the Project should offer prospects of a sound enterprise promising high profit.

- (3) Considering the foregoing results of financial analysis together with the economic benefits expected to accrue to the nation from its implementation, the Project is judged to be feasible.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 LOAN REPAYMENT SCHEDULE FOR LONG TERM DEBT
 - CASE (A) : CORRUGATING MEDIUM - {US* 1000}

AMOUNT OF DEBT		75503.				
INTEREST RATE		11.00	PER CENT/YEAR			
REPAYMENT		10 YEAR-EQUAL-INSTALLMENT-REPAYMENT		(ANNUAL REPAYMENT)		
YEAR	SER-NO	PRINCIPAL	INTEREST	DEBT SERVICE	BALANCE AFT. PAYMENT	
1983	1	0.	0.	0.	75503.	
1984	2	0.	0.	0.	75503.	
1985	3	0.	0.	0.	75503.	
1986	4	0.	0.	0.	75503.	
1987	5	0.	8305.	8305.	75503.	
1988	6	0.	8305.	8305.	75503.	
1989	7	0.	8305.	8305.	75503.	
1990	8	7550.	8305.	15856.	67953.	
1991	9	7550.	7475.	15025.	60402.	
1992	10	7550.	6644.	14195.	52852.	
1993	11	7550.	5814.	13364.	45302.	
1994	12	7550.	4983.	12533.	37752.	
1995	13	7550.	4153.	11703.	30201.	
1996	14	7550.	3322.	10872.	22651.	
1997	15	7550.	2492.	10042.	15101.	
1998	16	7550.	1661.	9211.	7550.	
1999	17	7550.	831.	8381.	0.	
2000	18	0.	0.	0.	0.	
2001	19	0.	0.	0.	0.	
TOTAL		75503.	70595.	146098.	0.	

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 INCOME STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 - CASE (A) : CURRUCATING MEDIUM - (US\$ 1000)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
SALES REVENUE	17996.	27084.	28830.	28890.	28890.	28890.	28890.	28890.	28890.	28890.	28890.
COST OF SALES	19927.	21230.	21199.	20713.	20165.	20165.	20165.	20165.	20165.	20165.	18691.
VARIABLE COST	3855.	5634.	5930.	5930.	5930.	5930.	5930.	5930.	5930.	5930.	5930.
DEPRECIATION & AMORTIZATION	6247.	6247.	6247.	6247.	6247.	6247.	6247.	6247.	6247.	6247.	4773.
OTHER FIXED COST	10652.	9632.	9066.	8536.	7988.	7988.	7988.	7988.	7988.	7988.	7988.
(INC) IN PRODUCT INVENTORIES	-866.	-283.	-44.	0.	0.	0.	0.	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES	-1931.	5854.	7631.	8176.	8724.	8724.	8724.	8724.	8724.	8724.	10199.
LESS. SALES EXPENSES	370.	557.	593.	594.	594.	594.	594.	594.	594.	594.	594.
OPERATING PROFIT OR (LOSS)	-2301.	5298.	7038.	7582.	8130.	8130.	8130.	8130.	8130.	8130.	9605.
LESS. INTEREST											
ON LONG TERM DEBT	8305.	8305.	8305.	8305.	7475.	6644.	5814.	4983.	4153.	3322.	2492.
ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	-10607.	-3008.	-1268.	-723.	656.	1486.	2317.	3147.	3978.	4808.	7114.
LESS. INCOME TAX	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1209.
NET PROFIT OR (LOSS) AFTER TAX	-10607.	-3008.	-1268.	-723.	656.	1486.	2317.	3147.	3978.	4808.	5904.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 INCOME STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 - CASE (A) : CURRUGATING MEDIUM - (US\$ 1000)

	1998	1999	2000	2001
SALES REVENUE	28890.	28890.	28890.	28890.
COST OF SALES	18691.	18691.	18691.	18691.
VARIABLE COST	5930.	5930.	5930.	5930.
DEPRECIATION & AMORTIZATION	4773.	4773.	4773.	4773.
OTHER FIXED COST	7988.	7988.	7988.	7988.
(INC) IN PRODUCT INVENTORIES	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES	10199.	10199.	10199.	10199.
LESS. SALES EXPENSES	594.	594.	594.	594.
OPERATING PROFIT OR (LOSS)	9605.	9605.	9605.	9605.
LESS. INTEREST				
ON LONG TERM DEBT	1661.	831.	0.	0.
ON SHORT TERM DEBT	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	7944.	8775.	9605.	9605.
LESS. INCOME TAX	1350.	1492.	1633.	1633.
NET PROFIT OR (LOSS) AFTER TAX	6594.	7283.	7972.	7972.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 FUNDS FLOW STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 - CASE (A) : CURRUGATING MEDIUM - (US\$ 1000)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
SOURCES OF FUNDS	1321.	16724.	40451.	35883.	4267.	11693.	13310.	13830.	14378.	14378.	14378.
CASH GENERATED FROM OPERATION	0.	0.	0.	0.	3946.	11545.	13285.	13830.	14378.	14378.	14378.
PROFIT BEFORE TAX, INTEREST DEPRECIATION & AMORTIZATION	0.	0.	0.	0.	-2301.	5298.	7038.	7582.	8130.	8130.	8130.
FINANCIAL RESOURCES	1321.	16724.	40451.	35883.	0.	6247.	6247.	6247.	6247.	6247.	6247.
SHARE CAPITAL	264.	3345.	8090.	7177.	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	1057.	13379.	32361.	28706.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN ACCT PAYABLE	0.	0.	0.	0.	321.	148.	25.	0.	0.	0.	0.
USES OF FUNDS	1315.	16716.	40445.	28124.	11554.	9753.	8563.	15861.	18586.	14195.	13364.
INVESTMENT IN FIXED ASSET	1315.	16716.	40445.	26445.	0.	0.	0.	0.	3561.	0.	0.
LAND AND SITE IMPROVEMENT	5.	418.	1019.	522.	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	0.	14556.	35469.	18185.	0.	0.	0.	0.	3561.	0.	0.
PRE-INVEST. & START-UP EXP	1256.	931.	805.	1634.	0.	0.	0.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTN	55.	811.	3152.	6105.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET OTHER THAN CASH	0.	0.	0.	1679.	3249.	1448.	258.	5.	0.	0.	0.
INCR(DECR) ACC T RECEIVABLE	0.	0.	0.	0.	1500.	757.	145.	5.	0.	0.	0.
INCR(DECR) IN INVENTORIES	0.	0.	0.	0.	866.	283.	44.	0.	0.	0.	0.
PRODUCTS	0.	0.	0.	0.	883.	407.	68.	0.	0.	0.	0.
MATERIALS	0.	0.	0.	1679.	8305.	8305.	8305.	15856.	15025.	14195.	13364.
DEBT SERVICES	0.	0.	0.	0.	0.	0.	0.	7550.	7550.	7550.	7550.
REPAYMENT OF LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	8305.	8305.	8305.	8305.	7475.	6644.	5816.
INTEREST ON LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INCOME TAX PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	6.	8.	6.	7759.	-7287.	1940.	4747.	-2031.	-4208.	183.	1014.
BEGINNING CASH BALANCE	0.	6.	14.	20.	7779.	492.	2432.	7179.	5148.	940.	1123.
ENDING CASH BALANCE	6.	14.	20.	7779.	492.	2432.	7179.	5148.	940.	1123.	2137.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 FUNDS FLOW STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 - CASE (A) : CURRUGATING MEDIUM - (US\$ 1000)

	1994	1995	1996	1997	1998	1999	2000	2001
SOURCES OF FUNDS	14378.	14378.	14378.	14378.	14378.	14378.	14378.	14378.
CASH GENERATED FROM OPERATION	14378.	14378.	14378.	14378.	14378.	14378.	14378.	14378.
PROFIT BEFORE TAX, INTEREST	8130.	8130.	8130.	5605.	9605.	9605.	9605.	9605.
DEPRECIATION & AMORTIZATION	6247.	6247.	6247.	4773.	4773.	4773.	4773.	4773.
FINANCIAL RESOURCES	0.	0.	0.	0.	0.	0.	0.	0.
SHARE CAPITAL	0.	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN ACCT PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.
USES OF FUNDS	13929.	11703.	14433.	10763.	11723.	11186.	3098.	3391.
INVESTMENT IN FIXED ASSET	1396.	0.	3561.	0.	0.	0.	0.	0.
LAND AND SITE IMPROVEMENT	0.	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	1396.	0.	3561.	0.	0.	0.	0.	0.
PRE-INVEST. & START-UP EXP	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTN	0.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET	0.	0.	0.	0.	0.	0.	0.	0.
OTHER THAN CASH	0.	0.	0.	0.	0.	0.	0.	0.
INCR(DECR) ACC T RECEIVABLE	0.	0.	0.	0.	0.	0.	0.	0.
INCR(DECR) IN INVENTORIES	0.	0.	0.	0.	0.	0.	0.	0.
PRODUCTS	0.	0.	0.	0.	0.	0.	0.	0.
MATERIALS	0.	0.	0.	0.	0.	0.	0.	0.
DEBT SERVICES	12533.	11703.	10872.	10042.	9211.	8381.	0.	0.
REPAYMENT OF LONG TERM DEBT	7550.	7550.	7550.	7550.	7550.	7550.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	4983.	4153.	3322.	2492.	1661.	831.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.
INCOME TAX PAYMENT	0.	0.	0.	0.	1209.	1350.	1492.	1633.
DIVIDENDOS PAYMENT	0.	0.	0.	721.	1302.	1454.	1607.	1759.
CASH INCREASE OR (DECREASE)	448.	2675.	-56.	3615.	2655.	3192.	11280.	10986.
BEGINNING CASH BALANCE	2137.	2585.	5260.	5204.	8819.	11474.	14665.	25945.
ENDING CASH BALANCE	2585.	5260.	5204.	8819.	11474.	14665.	25945.	36931.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 - CASE (A) : CURRUGATING MEDIUM -

(US\$ 1000)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
ASSETS											
1321.	18045.	58496.	94379.	84093.	81234.	79991.	71718.	64823.	58759.	53526.	
CURRENT ASSETS	6.	14.	20.	9458.	5420.	8807.	13812.	11786.	7578.	7761.	8775.
CASH	6.	14.	20.	7779.	492.	2432.	7179.	5148.	940.	1123.	2137.
ACCOUNTS RECEIVABLE	0.	0.	0.	0.	1500.	2257.	2402.	2407.	2407.	2407.	2407.
INVENTORIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PRODUCTS	0.	0.	0.	0.	866.	1149.	1194.	1194.	1194.	1194.	1194.
MATERIALS	0.	0.	0.	1679.	2562.	2969.	3037.	3037.	3037.	3037.	3037.
NET FIXED ASSETS	1315.	18031.	58476.	84921.	78674.	72426.	66179.	59932.	57245.	50998.	44751.
INVESTMENT	1315.	18031.	58476.	84921.	84921.	84921.	84921.	84921.	88482.	88482.	88482.
LAND & SITE IMPROVEMENT	5.	423.	1442.	1964.	1964.	1964.	1964.	1964.	1964.	1964.	1964.
CONSTRUCTED FACILITIES	0.	14556.	50025.	68210.	68210.	68210.	68210.	68210.	71771.	71771.	71771.
PRE-INVEST. & START-UP EXP	1256.	2187.	2991.	4625.	4625.	4625.	4625.	4625.	4625.	4625.	4625.
INTEREST DURING CONSTRUCT	55.	865.	4017.	10122.	10122.	10122.	10122.	10122.	10122.	10122.	10122.
LESS-DEPRECIATN & AMORTIZTN	0.	0.	0.	0.	6247.	12495.	18742.	24989.	31237.	37484.	43731.
LIABILITIES	1057.	14436.	46797.	75503.	75824.	75972.	75997.	68447.	60897.	53346.	45796.
CURRENT LIABILITIES	0.	0.	0.	0.	321.	469.	8044.	8044.	8044.	8044.	8044.
ACCOUNTS PAYABLE	0.	0.	0.	0.	321.	469.	454.	494.	494.	494.	494.
INCOME TAX PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CURRENT PORTION OF DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	7550.	7550.	7550.	7550.	7550.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FIXED LIABILITIES	1057.	14436.	46797.	75503.	75503.	75503.	67993.	60402.	52852.	45302.	37751.
LONG TERM DEBT BALANCE	1057.	14436.	46797.	75503.	75503.	75503.	67993.	60402.	52852.	45302.	37751.
STOCK HOLDERS EQUITY	264.	3609.	11699.	18876.	8269.	5261.	3994.	3271.	3927.	5413.	7730.
SHARE CAPITAL	264.	3609.	11699.	18876.	18876.	18876.	18876.	18876.	18876.	18876.	18876.
RETAINED EARNINGS	0.	0.	0.	0.	-10407.	-13615.	-14882.	-15605.	-14949.	-13463.	-11146.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 - CASE (A) : CURRUGATING MEDIUM - (US\$ 1000)

	1994	1995	1996	1997	1998	1999	2000	2001
ASSETS	49123.	45550.	42808.	41650.	39532.	37952.	44459.	50672.
CURRENT ASSETS	9223.	11898.	11842.	15457.	18112.	21304.	32583.	43569.
CASH	2585.	5260.	5204.	8819.	11474.	14665.	25945.	36931.
ACCOUNTS RECEIVABLE	2407.	2407.	2407.	2407.	2407.	2407.	2407.	2407.
INVENTORIES	1194.	1194.	1194.	1194.	1194.	1194.	1194.	1194.
PRODUCTS	3037.	3037.	3037.	3037.	3037.	3037.	3037.	3037.
MATERIALS								
NET FIXED ASSETS	39900.	33652.	30966.	26193.	21421.	16648.	11875.	7103.
INVESTMENT	89878.	89878.	93439.	93439.	93439.	93439.	93439.	93439.
LAND & SITE IMPROVEMENT	1964.	1964.	1964.	1964.	1964.	1964.	1964.	1964.
CONSTRUCTED FACILITIES	73167.	73167.	76728.	76728.	76728.	76728.	76728.	76728.
PRE-INVEST. & START-UP EXP	4625.	4625.	4625.	4625.	4625.	4625.	4625.	4625.
INTEREST DURING CONSTRUCTN	10122.	10122.	10122.	10122.	10122.	10122.	10122.	10122.
LESS-DEPRECIATN & AMORTIZIN	49978.	56226.	62473.	67246.	72018.	76791.	81564.	86336.
LIABILITIES	38246.	30695.	23866.	18107.	10849.	3592.	3886.	3886.
CURRENT LIABILITIES	8044.	8044.	8766.	10556.	10849.	3592.	3886.	3886.
ACCOUNTS PAYABLE	494.	494.	494.	494.	494.	494.	494.	494.
INCOME TAX PAYABLE	0.	0.	0.	1209.	1350.	1492.	1633.	1633.
DIVIDENDS PAYABLE	0.	0.	721.	1302.	1454.	1607.	1759.	1759.
CURRENT PORTION OF DEBT	7550.	7550.	7550.	7550.	7550.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.
FIXED LIABILITIES	30201.	22651.	15101.	7550.	-0.	-0.	-0.	-0.
LONG TERM DEBT BALANCE	30201.	22651.	15101.	7550.	-0.	-0.	-0.	-0.
STOCK HOLDERS EQUITY	10877.	14855.	18942.	23544.	28683.	34359.	40573.	46787.
SHARE CAPITAL	18876.	18876.	18876.	18876.	18876.	18876.	18876.	18876.
RETAINED EARNINGS	-7999.	-4021.	66.	4668.	9807.	15483.	21697.	27911.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PRODUCTION AND SALES PLAN
 - CASE (A) : CORRUGATING MEDIUM - (US\$ 1000)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
CAPACITY (CORRUGATING MEDIUM)	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.
CAPACITY UTILIZATION	0.65C	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRODUCTION	25740.	37620.	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.
INCREASE IN INVENTORY	1073.	495.	83.	0.	0.	0.	0.	0.	0.	0.	0.
SALES VOLUME	24667.	37125.	39517.	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.
UNIT PRICE	0.6710	0.6710	0.6710	0.6710	0.6710	0.6710	0.6710	0.6710	0.6710	0.6710	0.6710
SALES REVENUE	16552.	24911.	26516.	26572.	26572.	26572.	26572.	26572.	26572.	26572.	26572.
CAPACITY (SAMPLING)	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.
CAPACITY UTILIZATION	0.650	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRODUCTION	30753.	44946.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.
INCREASE IN INVENTORY	1281.	591.	99.	0.	0.	0.	0.	0.	0.	0.	0.
SALES VOLUME	29471.	44355.	47213.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.
UNIT PRICE	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490
SALES REVENUE	1444.	2173.	2313.	2318.	2318.	2318.	2318.	2318.	2318.	2318.	2318.
*** TOTAL SALES REVENUE ***	17996.	27084.	28830.	28890.	28890.	28890.	28890.	28890.	28890.	28890.	28890.
*** TOTAL SALES VOLUME ***	54139.	81480.	86731.	86912.	86912.	86912.	86912.	86912.	86912.	86912.	86912.
*** AVERAGE SALES PRICE ***	0.3324	0.3324	0.3324	0.3324	0.3324	0.3324	0.3324	0.3324	0.3324	0.3324	0.3324

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PRODUCTION AND SALES PLAN
 - CASE (A) : CORRUGATING MEDIUM - (US\$ 1000)

	1958	1959	2000	2001
CAPACITY (CORRUGATING MEDIUM)	39600-	39600-	39600-	39600-
CAPACITY UTILIZATION	1-000	1-000	1-000	1-000
PRODUCTION	39600-	39600-	39600-	35600-
INCREASE IN INVENTORY	0-	0-	0-	0-
SALES VOLUME	39600-	39600-	39600-	39600-
UNIT PRICE	0-6710	0-6710	0-6710	0-6710
SALES REVENUE	26572-	26572-	26572-	26572-
CAPACITY (SAMPLING)	47312-	47312-	47312-	47312-
CAPACITY UTILIZATION	1-000	1-000	1-000	1-000
PRODUCTION	47312-	47312-	47312-	47312-
INCREASE IN INVENTORY	0-	0-	0-	0-
SALES VOLUME	47312-	47312-	47312-	47312-
UNIT PRICE	0-0490	0-0490	0-0490	0-0490
SALES REVENUE	2318-	2318-	2318-	2318-
*** TOTAL SALES REVENUE ***	28890-	28890-	28890-	28890-
*** TOTAL SALES VOLUME ***	86912-	86912-	86912-	86912-
*** AVERAGE SALES PRICE ***	0-3324	0-3324	0-3324	0-3324

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PRODUCTION COST STATEMENTS
 - CASE (A) : CURRUGATING MEDIUM - (US\$ 1000)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
PRODUCTION											
	25740.	37620.	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.	39600.
RAW MATERIAL COST	486.	711.	748.	748.	748.	748.	748.	748.	746.	748.	748.
AUXILIARY MATERIALS	3368.	4923.	5182.	5182.	5182.	5182.	5182.	5182.	5182.	5182.	5182.
VARIABLE COST	3855.	5634.	5930.	5930.	5930.	5930.	5930.	5930.	5930.	5930.	5930.
MACHINERY AND EQUIPMENT	3687.	3687.	3687.	3687.	3687.	3687.	3687.	3687.	3687.	3687.	3687.
CIVIL AND BUILDING	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.
LOG HANDLING EQUIPMENT (1)	712.	712.	712.	712.	712.	712.	712.	712.	712.	712.	712.
LOG HANDLING EQUIPMENT (2)	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LOG HANDLING EQUIPMENT (3)	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TRANSPORTATION EQUIPMENT (1)	175.	175.	175.	175.	175.	175.	175.	175.	175.	175.	175.
TRANSPORTATION EQUIPMENT (2)	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEPRECIATION	4773.	4773.	4773.	4773.	4773.	4773.	4773.	4773.	4773.	4773.	4773.
PRE-OPER	462.	462.	462.	462.	462.	462.	462.	462.	462.	462.	462.
I-D-C.	1012.	1012.	1012.	1012.	1012.	1012.	1012.	1012.	1012.	1012.	1012.
AMORTIZATION	1475.	1475.	1475.	1475.	1475.	1475.	1475.	1475.	1475.	1475.	1475.
DEPRECIATION & AMORTIZATION	6247.	6247.	6247.	6247.	6247.	6247.	6247.	6247.	6247.	6247.	6247.
LABOUR COST	5532.	5532.	5532.	5532.	5532.	5532.	5532.	5532.	5532.	5532.	5532.
MANAGEMENT	777.	777.	777.	777.	777.	777.	777.	777.	777.	777.	777.
REPAIR AND MAINTENANCE	1679.	1679.	1679.	1679.	1679.	1679.	1679.	1679.	1679.	1679.	1679.
TECHNICAL ASSISTANCE	2704.	1644.	1078.	548.	0.	0.	0.	0.	0.	0.	0.
DIRECT FIXED COST	10692.	9632.	9066.	8536.	7988.	7988.	7988.	7988.	7988.	7988.	7988.
EX-FACTORY PRODUCTION COST	20794.	21513.	21243.	20713.	20165.	20165.	20165.	20165.	20165.	20165.	20165.
UNIT DIRECT OPERATING COST	0.8078	0.5718	0.5364	0.5231	0.5092	0.5092	0.5092	0.5092	0.5092	0.5092	0.5092
SALES EXPENSES	370.	557.	593.	554.	594.	594.	594.	594.	594.	594.	594.
INTEREST ON LONG TERM DEBT	8305.	8305.	8305.	8305.	7475.	6644.	5814.	4983.	4153.	3322.	2492.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL PRODUCTION COST	29465.	30375.	30142.	25613.	28234.	27404.	26573.	25743.	24912.	24082.	21776.
UNIT PRODUCTION COST	1.1449	0.8074	0.7611	0.7478	0.7130	0.6920	0.6710	0.6501	0.6291	0.6081	0.5499

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PRODUCTION COST STATEMENTS
 - CASE (A) : CURRUGATING MEDIUM - (US\$ 1000)

	1988	1999	2000	2001
PRODUCTION	39600.	39600.	39600.	39600.
RAW MATERIAL COST	748.	748.	748.	748.
AUXILIARY MATERIALS	5182.	5182.	5182.	5182.
VARIABLE COST	5930.	5930.	5930.	5930.
MACHINERY AND EQUIPMENT	3687.	3687.	3687.	3687.
CIVIL AND BUILDING	199.	199.	199.	199.
LOG HANDLING EQUIPMENT (1)	0.	0.	0.	0.
LOG HANDLING EQUIPMENT (2)	0.	0.	0.	0.
LOG HANDLING EQUIPMENT (3)	712.	712.	712.	712.
TRANSPORTATION EQUIPMENT (1)	0.	0.	0.	0.
TRANSPORTATION EQUIPMENT (2)	175.	175.	175.	175.
DEPRECIATION	4773.	4773.	4773.	4773.
PRE-OPERATION	0.	0.	0.	0.
I.D.C.	0.	0.	0.	0.
AMORTIZATION	0.	0.	0.	0.
DEPRECIATION & AMORTIZATION	4773.	4773.	4773.	4773.
LABOUR COST	5532.	5532.	5532.	5532.
MANAGEMENT	777.	777.	777.	777.
REPAIR AND MAINTENANCE	1679.	1679.	1679.	1679.
TECHNICAL ASSISTANCE	0.	0.	0.	0.
DIRECT FIXED COST	7988.	7988.	7988.	7988.
EX-FACTORY PRODUCTION COST	18691.	18691.	18691.	18691.
UNIT DIRECT OPERATING COST	0.4720	0.4720	0.4720	0.4720
SALES EXPENSES	594.	594.	594.	594.
INTEREST ON LONG TERM DEBT	1661.	831.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.
TOTAL PRODUCTION COST	20946.	20115.	19285.	19285.
UNIT PRODUCTION COST	0.5289	0.5080	0.4870	0.4870

*** PULP AND PAPER MILLS PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 - CASE (A) : CURRUGATING MEDIUM - (USE 1000)

YEAR	(1) AFT TAX PROFIT -TO- SALES REV S/H (PCT)	(2) AFT TAX PROFIT -TO- EQUITY (PCT)	(3) BFR TAX PROFIT -TO- INVESTMENT (PCT)	(4) AFT TAX PROFIT -TO- CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TO- S/H EQUITY	(9)* PROFIT B-E-P. CAPACITY UTILIZE (PCT)	(10)* CASH B-E-P. SALES PRICE (PRICE)	(11)* CASH B-E-P. CAPACITY UTILIZE (PCT)
1987	-58.9	-128.3	-11.2	-56.2	16.87	6.20	0.48	90./ 10.	112.7	941.4	84.8
1988	-11.1	-57.2	-3.2	-15.9	18.76	9.99	1.39	93./ 7.	108.1	649.9	80.2
1989	-4.4	-31.7	-1.3	-6.7	1.72	1.19	1.60	94./ 6.	105.6	504.6	77.7
1990	-2.5	-22.1	-0.8	-3.8	1.47	0.94	0.87	95./ 5.	103.2	780.7	109.1
1991	2.3	16.7	0.7	3.5	0.94	0.42	0.96	93./ 7.	97.1	745.9	102.9
1992	5.1	27.5	1.5	7.9	0.96	0.44	1.01	89./ 11.	93.4	724.9	99.2
1993	8.0	30.0	2.4	12.3	1.09	0.56	1.08	83./ 17.	89.6	703.9	95.5
1994	10.9	28.9	3.2	16.7	1.15	0.62	1.15	74./ 26.	85.9	683.0	91.8
1995	13.8	26.8	4.0	21.1	1.48	0.95	1.23	60./ 40.	82.2	662.0	88.0
1996	16.6	25.4	4.7	25.5	1.35	0.87	1.32	44./ 56.	78.5	641.0	84.3
1997	20.4	25.1	6.9	31.3	1.46	1.06	1.31	24./ 76.	68.2	634.4	83.2
1998	22.8	23.0	7.7	34.9	1.67	1.28	1.41	-0./ 100.	64.5	613.4	79.4
1999	25.2	21.2	8.5	38.6	5.93	4.75	1.54	-0./ 100.	60.8	592.5	75.7
2000	27.6	19.6	9.3	42.2	6.39	7.30	1.54	-0./ 100.	57.1	366.5	35.7
2001	27.6	17.0	9.3	42.2	11.21	10.12	1.54	-0./ 100.	57.1	366.5	35.7
AVERAGE1	6.9	1.5	2.8	12.9	4.96	3.11	1.32	56./ 44.	84.3	647.4	81.5
AVERAGE2	8.7	14.2	2.9	12.9	2.31	1.68	1.32	66./ 34.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TWO OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - CASE (A) : CURRUGATING MEDIUM - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	RETURN BEFORE TAX	(BEFORE TAX)		DISCOUNT FACTOR	PRESENT VALUE INVEST.	RETURN	(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
						INVEST.	RETURN							INVEST.	RETURN
1983	1261.	0.	0.	0.	0.	1-0000	1261.	0.	0.	0.	0.	1-0000	1261.	0.	
1984	15905.	0.	0.	0.	0.	0.9040	14378.	0.	0.	0.	0.	0.9064	14416.	0.	
1985	37293.	0.	0.	0.	0.	0.8171	30474.	0.	0.	0.	0.	0.8215	30638.	0.	
1986	29799.	0.	0.	0.	0.	0.7387	22011.	0.	0.	0.	0.	0.7446	22189.	0.	
1987	0.	-10607.	6247.	8305.	3946.	0.6677	2635.	0.	2635.	3946.	0.	0.6749	2693.	2693.	
1988	0.	-3008.	6247.	8305.	11545.	0.6036	6968.	0.	6968.	11545.	0.	0.6118	7083.	7083.	
1989	0.	-1268.	6247.	8305.	13285.	0.5456	7249.	0.	7249.	13285.	0.	0.5545	7367.	7367.	
1990	0.	-723.	6247.	8305.	13830.	0.4932	6821.	0.	6821.	13830.	0.	0.5026	6951.	6951.	
1991	3561.	656.	6247.	7475.	14378.	0.4459	6410.	0.	6410.	14378.	0.	0.4555	6550.	6550.	
1992	0.	1486.	6247.	6644.	14378.	0.4030	5795.	0.	5795.	14378.	0.	0.4129	5937.	5937.	
1993	0.	2317.	6247.	5814.	14378.	0.3643	5238.	0.	5238.	14378.	0.	0.3743	5381.	5381.	
1994	1396.	3147.	6247.	4983.	14378.	0.3293	460.	0.	460.	14378.	0.	0.3392	474.	474.	
1995	0.	3978.	6247.	4153.	14378.	0.2977	4280.	0.	4280.	14378.	0.	0.3075	4421.	4421.	
1996	3561.	4808.	6247.	3322.	14378.	0.2691	3859.	0.	3859.	14378.	0.	0.2787	4007.	4007.	
1997	0.	7114.	4773.	2492.	14378.	0.2433	3498.	0.	3498.	13168.	1209.	0.2526	3324.	3324.	
1998	0.	7544.	4773.	1661.	14378.	0.2199	3162.	0.	3162.	13027.	1350.	0.2290	2983.	2983.	
1999	0.	8775.	4773.	831.	14378.	0.1988	2858.	0.	2858.	12886.	1492.	0.2075	2674.	2674.	
2000	0.	5605.	4773.	0.	14378.	0.1797	2584.	0.	2584.	12745.	1633.	0.1881	2397.	2397.	
2001	-16561.	5605.	4773.	0.	14378.	0.1624	-2690.	0.	-2690.	12745.	1633.	0.1705	-2823.	2173.	
TOTAL	76214.			200761.			68439.		68439.	193444.			68769.	68769.	

***** INTERNAL RATE OF RETURN ***** 10.62 PER CENT (BEFORE TAX) 10.33 PER CENT (AFTER TAX)
 ***** PAY-OUT PERIOD ***** 8.19 YEAR (BEFORE TAX) 8.19 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS		SOURCE OF FUNDS	
LAND AND SITE IMPROVEMENT	1964.	PAID-UP SHARE CAPITAL	18876.
MACHINERY AND EQUIPMENT	55310.	LONG TERM DEBT	75503.
CIVIL AND BUILDING	7943.	SHORT TERM DEBT	0.
LOG HANDLING EQUIPMENT (1)	3561.	FINANCIAL RESOURCES	94379.
LOG HANDLING EQUIPMENT (2)	3561.		
LOG HANDLING EQUIPMENT (3)	3561.		
TRANSPORTATION EQUIPMENT (1)	1396.		
TRANSPORTATION EQUIPMENT (2)	1396.		
CONSTRUCTED FACILITIES	76728.		
PRE-INVEST AND START-UP EXP	4625.		
INTEREST DURING CONSTRUCTION	10122.		
TOTAL FIXED CAPITAL	93439.		
INITIAL WORKING CAPITAL	9458.		
TOTAL CAPITAL COST	102897.		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY -

(US\$ 1000)

YEAR	SHARE CAPITAL (OUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH	
									OUT-FLOW	IN-FLOW
1983	264.	0.	0.	0.	0.	0.	0.	1.00000	264.	0.
1984	3345.	0.	0.	0.	0.	0.	0.	0.92459	3093.	0.
1985	8090.	0.	0.	0.	0.	0.	0.	0.85487	6916.	0.
1986	7177.	0.	0.	0.	0.	0.	0.	0.79041	5672.	0.
1987	0.	-10607.	0.	-10607.	6247.	0.	-4360.	0.73081	-3186.	0.
1988	0.	-3008.	0.	-3008.	6247.	0.	3240.	0.67570	2189.	0.
1989	0.	-1268.	0.	-1268.	6247.	0.	4980.	0.62475	3111.	0.
1990	0.	-723.	0.	-723.	6247.	7550.	-2026.	0.57763	-1170.	0.
1991	0.	656.	0.	656.	6247.	7550.	-647.	0.53408	-346.	0.
1992	0.	1486.	0.	1486.	6247.	7550.	183.	0.49380	90.	0.
1993	0.	2317.	0.	2317.	6247.	7550.	1014.	0.45657	463.	0.
1994	0.	3147.	0.	3147.	6247.	7550.	1846.	0.42214	779.	0.
1995	0.	3978.	0.	3978.	6247.	7550.	2675.	0.39031	1044.	0.
1996	0.	4808.	0.	4808.	6247.	7550.	3505.	0.36087	1265.	0.
1997	0.	7114.	1205.	5904.	4773.	7550.	3127.	0.33366	1043.	0.
1998	0.	7944.	1350.	6594.	4773.	7550.	3816.	0.30850	1177.	0.
1999	0.	8775.	1492.	7283.	4773.	7550.	4505.	0.28524	1285.	0.
2000	0.	5605.	1633.	7972.	4773.	0.	12745.	0.26373	3361.	0.
2001	-7103.	9605.	1633.	7972.	4773.	0.	12745.	0.24384	-1732.	3108.
TOTAL	11773.						47346.		14213.	14213.

**** INTERNAL RATE OF RETURN ***** 8.16 PER CENT (AFTER TAX)

**** PAY-OUT PERIOD ***** 12.34 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SOURCE OF FUNDS

LAND AND SITE IMPROVEMENT	1964.	PAID-UP SHARE CAPITAL	18876.
MACHINERY AND EQUIPMENT	55310.	LONG TERM DEBT	75503.
CIVIL AND BUILDING	7943.	SHORT TERM DEBT	0.
LOG HANDLING EQUIPMENT (1)	3561.	FINANCIAL RESOURCES	94379.
LOG HANDLING EQUIPMENT (2)	3561.		
LOG HANDLING EQUIPMENT (3)	3561.		
TRANSPORTATION EQUIPMENT (1)	1396.		
TRANSPORTATION EQUIPMENT (2)	1396.		
CONSTRUCTED FACILITIES	76728.		
PRE-INVEST AND START-UP EXP	4625.		
INTEREST DURING CONSTRUCTION	10122.		
TOTAL FIXED CAPITAL	93439.		
INITIAL WORKING CAPITAL	9458.		
TOTAL CAPITAL COST	102897.		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - SELLING PRICE 10% DOWN -
 (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	RETURN BEFORE TAX	DISCOUNT FACTOR	(BEFORE TAX)		(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
							PRESENT VALUE INVEST.	RETURN				PRESENT VALUE INVEST.	RETURN
1983	1261.	0.	0.	0.	0.	1.0000	1261.	0.	0.	0.	1.0000	1261.	0.
1984	15905.	0.	0.	0.	0.	0.9627	15312.	0.	0.	0.	0.9627	15313.	0.
1985	37293.	0.	0.	0.	0.	0.9268	34563.	0.	0.	0.	0.9269	34566.	0.
1986	29799.	0.	0.	0.	0.	0.8923	26588.	0.	0.	0.	0.8923	26591.	0.
1987	0.	-12406.	6247.	8305.	2146.	0.8590	1844.	0.	2146.	0.	0.8591	1844.	0.
1988	0.	-5878.	6247.	8305.	8674.	0.8269	7173.	0.	8674.	0.	0.8271	7174.	0.
1989	0.	-4432.	6247.	8305.	10120.	0.7961	8057.	0.	10120.	0.	0.7963	8059.	0.
1990	0.	-3670.	6247.	8305.	10883.	0.7664	8341.	0.	10883.	0.	0.7666	8343.	0.
1991	3561.	-2988.	6247.	7475.	10734.	0.7378	7920.	0.	10734.	0.	0.7380	7922.	0.
1992	0.	-3257.	6247.	6644.	9634.	0.7103	6844.	0.	9634.	0.	0.7106	6846.	0.
1993	0.	-3065.	6247.	5814.	8996.	0.6838	6152.	0.	8996.	0.	0.6841	6154.	0.
1994	1396.	-2846.	6247.	4983.	8384.	0.6583	919.	0.	8384.	0.	0.6586	919.	0.
1995	0.	-2792.	6247.	4153.	7608.	0.6338	4822.	0.	7608.	0.	0.6341	4824.	0.
1996	3561.	-2535.	6247.	3322.	7035.	0.6102	4292.	0.	7035.	0.	0.6104	4294.	0.
1997	0.	-1265.	4773.	2492.	5999.	0.5874	3524.	0.	5999.	0.	0.5877	3526.	0.
1998	0.	-1001.	4773.	1661.	5433.	0.5655	3072.	0.	5433.	0.	0.5658	3074.	0.
1999	0.	-699.	4773.	831.	4904.	0.5444	2670.	0.	4904.	0.	0.5447	2671.	0.
2000	0.	-355.	4773.	0.	4417.	0.5241	2315.	0.	4417.	0.	0.5244	2317.	0.
2001	-16561.	263.	4773.	0.	5036.	0.5046	-8356.	45.	4991.	45.	0.5049	-8361.	2520.
TOTAL	76214.				110005.		75087.		109960.			75089.	75089.

***** INTERNAL RATE OF RETURN ***** 3.87 PER CENT (BEFORE TAX) 3.87 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** 13-53 YEAR (BEFORE TAX) 13-53 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SOURCE OF FUNDS

LAND AND SITE IMPROVEMENT	1964.	PAID-UP SHARE CAPITAL	18876.
MACHINERY AND EQUIPMENT	55310.	LONG TERM DEBT	75503.
CIVIL AND BUILDING	7943.	SHORT TERM DEBT	0.
LOG HANDLING EQUIPMENT (1)	3561.	FINANCIAL RESOURCES	94379.
LOG HANDLING EQUIPMENT (2)	3561.		
LOG HANDLING EQUIPMENT (3)	3561.		
TRANSPORTATION EQUIPMENT (1)	1396.		
TRANSPORTATION EQUIPMENT (2)	1396.		
CONSTRUCTED FACILITIES	76728.		
PRE-INVEST AND START-UP EXP	4625.		
INTEREST DURING CONSTRUCTION	10122.		
TOTAL FIXED CAPITAL	93439.		
INITIAL WORKING CAPITAL	9458.		
TOTAL CAPITAL COST	102897.		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY -

(US\$ 1000)

YEAR	SHARE CAPITAL (OUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH	
									OUT-FLOW	IN-FLOW
1983	264	0	0	0	0	0	0	0.0	0	0
1984	3345	0	0	0	0	0	0	0.0	0	0
1985	8090	0	0	0	0	0	0	0.0	0	0
1986	7177	0	0	0	0	0	0	0.0	0	0
1987	0	-12406	0	-12406	6247	0	-6159	0.0	0	0
1988	0	-5878	0	-5878	6247	0	369	0.0	0	0
1989	0	-4432	0	-4432	6247	0	1815	0.0	0	0
1990	0	-3670	0	-3670	6247	7550	-4973	0.0	0	0
1991	0	-2986	0	-2986	6247	7550	-4291	0.0	0	0
1992	0	-3257	0	-3257	6247	7550	-4368	0.0	0	0
1993	0	-3065	0	-3065	6247	7550	-4149	0.0	0	0
1994	0	-2846	0	-2846	6247	7550	-4095	0.0	0	0
1995	0	-2192	0	-2192	6247	7550	-3838	0.0	0	0
1996	0	-2535	0	-2535	6247	7550	-4043	0.0	0	0
1997	0	-1265	0	-1265	4773	7550	-3778	0.0	0	0
1998	0	-1001	0	-1001	4773	7550	-3477	0.0	0	0
1999	0	-659	0	-659	4773	7550	-4417	0.0	0	0
2000	0	-355	0	-355	4773	0	4991	0.0	0	0
2001	-7103	263	45	219	4773	0	0	0.0	0	0
TOTAL	11773									
****	INTERNAL RATE OF RETURN	****		0.0	PER CENT (AFTER TAX)		-36.138		0	0

SUM OF THE COST IS LARGER THAN THE ACCUMULATED RETURN, SO THAT IRR WILL BE GOT IN NEGATIVE QUANTITY
 ***** PAY-OUT PERIOD (YEARS) ***** THE SHARE CAPITAL CAN NOT BE PAID OUT WITHIN THE PROJECT LIFE (AFTER TAX BASE)

CAPITAL REQUIREMENTS		SOURCE OF FUNDS	
LAND AND SITE IMPROVEMENT	1964	PAID-UP SHARE CAPITAL	18876
MACHINERY AND EQUIPMENT	55310	LONG TERM DEBT	75503
CIVIL AND BUILDING	7943	SHORT TERM DEBT	0
LOG HANDLING EQUIPMENT (1)	3561	FINANCIAL RESOURCES	94379
LOG HANDLING EQUIPMENT (2)	3561		
LOG HANDLING EQUIPMENT (3)	3561		
TRANSPORTATION EQUIPMENT (1)	1396		
TRANSPORTATION EQUIPMENT (2)	1396		
CONSTRUCTED FACILITIES	76728		
PRE-INVEST AND START-UP EXP	4625		
INTEREST DURING CONSTRUCTION	10122		
TOTAL FIXED CAPITAL	93435		
INITIAL WORKING CAPITAL	9458		
TOTAL CAPITAL COST	102897		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - SELLING PRICE 10% UP - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST CN L-T DEBT TAX	(BEFORE TAX)			DISCOUNT FACTOR	RETURN INVEST.	PRESENT VALUE	(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
					RETURN BEFORE TAX	INVEST.	RETURN							INVEST.	RETURN
1983	1261.	0.	0.	0.	0.	1261.	1.0000	0.	0.	1261.	0.	0.	1.0000	1261.	0.
1984	15905.	0.	0.	0.	0.	14017.	0.8813	0.	0.	14017.	0.	0.	0.8837	14055.	0.
1985	37253.	0.	0.	0.	0.	28964.	0.7767	0.	0.	28964.	0.	0.	0.7809	29122.	0.
1986	29759.	0.	0.	0.	0.	20397.	0.6845	0.	0.	20397.	0.	0.	0.6901	20564.	0.
1987	0.	-807.	0.	0.	0.	0.	0.6032	3466.	0.	0.	5745.	0.	0.6098	0.	3504.
1988	0.	-299.	6247.	8305.	14253.	0.	0.5316	7577.	0.	0.	14253.	0.	0.5389	0.	7681.
1989	0.	1615.	6247.	8305.	16168.	0.	0.4685	7575.	0.	0.	16168.	0.	0.4762	0.	7700.
1990	0.	2166.	6247.	8305.	16719.	0.	0.4125	6903.	0.	0.	16719.	0.	0.4208	0.	7036.
1991	3561.	3545.	6247.	7475.	17267.	1296.	0.3639	6263.	0.	0.	17267.	0.	0.3719	1324.	6421.
1992	0.	4375.	6247.	6644.	17267.	0.	0.3207	5537.	0.	0.	17267.	0.	0.3286	0.	5675.
1993	0.	5206.	6247.	5814.	17267.	0.	0.2826	4880.	0.	0.	17267.	0.	0.2904	0.	5015.
1994	1396.	6036.	6247.	4983.	17267.	348.	0.2491	4301.	0.	0.	17267.	0.	0.2566	358.	4431.
1995	0.	6867.	6247.	4153.	17267.	0.	0.2155	3790.	0.	0.	17267.	0.	0.2268	0.	3916.
1996	3561.	7657.	6247.	3322.	17267.	689.	0.1934	3340.	0.	0.	17267.	0.	0.2004	714.	3460.
1997	0.	10003.	4773.	2492.	17267.	0.	0.1705	2944.	0.	1700.	15566.	0.	0.1771	0.	2757.
1998	0.	10833.	4773.	1661.	17267.	0.	0.1502	2594.	0.	1642.	15425.	0.	0.1565	0.	2414.
1999	0.	11684.	4773.	831.	17267.	0.	0.1324	2286.	0.	1983.	15284.	0.	0.1383	0.	2114.
2000	0.	12454.	4773.	0.	17267.	0.	0.1167	2015.	0.	2124.	15143.	0.	0.1222	0.	1851.
2001	-16561.	12494.	4773.	0.	17267.	-1703.	0.1028	1776.	0.	2124.	15143.	0.	0.1080	-1789.	1635.
TOTAL	76214.				242820.	65268.		65268.		233047.				65610.	65610.

***** INTERNAL RATE OF RETURN ***** 13.47 PER CENT (BEFORE TAX) 13.16 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** 6.90 YEAR (BEFORE TAX) 6.90 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

		SOURCE OF FUNDS
LAND AND SITE IMPROVEMENT	1964.	PAID-UP SHARE CAPITAL
MACHINERY AND EQUIPMENT	55310.	LONG TERM DEBT
CIVIL AND BUILDING	7943.	SHORT TERM DEBT
LOG HANDLING EQUIPMENT (1)	3561.	FINANCIAL RESOURCES
LOG HANDLING EQUIPMENT (2)	3561.	
LOG HANDLING EQUIPMENT (3)	3561.	
TRANSPORTATION EQUIPMENT (1)	1396.	
TRANSPORTATION EQUIPMENT (2)	76728.	
CONSTRUCTED FACILITIES	1396.	
PRE-INVEST AND START-UP EXP	4625.	
INTEREST DURING CONSTRUCTION	10122.	
TOTAL FIXED CAPITAL	93439.	
INITIAL WORKING CAPITAL	9458.	
TOTAL CAPITAL COST	102897.	

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY -

(US\$ 1000)

YEAR	SHARE CAPITAL (OUT)	PROFIT BEFCRE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (%)	DISCOUNT FACTOR	DISCOUNTED CASH	
									OUT-FLOW	IN-FLOW
1983	264	C.	0.	0.	0.	0.	0.	1.00000	264	0.
1984	3345	C.	C.	0.	0.	0.	0.	0.85447	2858	0.
1985	8090	C.	0.	0.	0.	0.	0.	0.73012	5907	0.
1986	7177	0.	0.	0.	0.	0.	0.	0.62387	4477	0.
1987	0.	-8807	C.	-8807	6247	0.	-2560	0.53308	0.	-1365
1988	0.	-299	C.	-299	6247	0.	5948	0.45550	0.	2709
1989	0.	1615	C.	1615	6247	0.	7863	0.38921	0.	3060
1990	0.	2166	C.	2166	6247	7550	863	0.33257	0.	287
1991	0.	3545	C.	3545	6247	7550	2242	0.28417	0.	637
1992	0.	4375	C.	4375	6247	7550	3072	0.24281	0.	746
1993	0.	5206	C.	5206	6247	7550	3903	0.20748	0.	810
1994	0.	6036	C.	6036	6247	7550	4733	0.17728	0.	839
1995	0.	6867	C.	6867	6247	7550	5564	0.15148	0.	843
1996	0.	7657	C.	7657	6247	7550	6394	0.12944	0.	828
1997	0.	10003	C.	8302	4773	7550	5524	0.11060	0.	611
1998	0.	10833	1700	8951	4773	7550	6214	0.09451	0.	587
1999	0.	11664	1842	9681	4773	7550	6903	0.08075	0.	557
2000	0.	12454	2124	10370	4773	0.	15143	0.06900	0.	1045
2001	-7103	12454	2124	10370	4773	0.	15143	0.05896	-419	893
TOTAL	11773						86949		13048	13088

**** INTERNAL RATE OF RETURN **** 17.03 PER CENT (AFTER TAX)

**** PAY-OUT PERIOD **** 6.37 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

		SOURCE OF FUNDS
LAND AND SITE IMPROVEMENT	1964	PAID-UP SHARE CAPITAL
MACHINERY AND EQUIPMENT	55310	LONG TERM DEBT
CIVIL AND BUILDING	7943	SHORT TERM DEBT
LOG HANDLING EQUIPMENT (1)	3561	FINANCIAL RESOURCES
LOG HANDLING EQUIPMENT (2)	3561	
LOG HANDLING EQUIPMENT (3)	3561	
TRANSPORTATION EQUIPMENT (1)	1396	
TRANSPORTATION EQUIPMENT (2)	1396	
CONSTRUCTED FACILITIES	76728	
PRE-INVEST AND START-UP EXP	4625	
INTEREST DURING CONSTRUCTION	10122	
TOTAL FIXED CAPITAL	93439	
INITIAL WORKING CAPITAL	9458	
TOTAL CAPITAL COST	102897	

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - INVESTMENT COST 10% DCAN - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	RETURN BEFORE TAX	(BEFORE TAX)		(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
						PRESENT VALUE INVEST.	RETURN				PRESENT VALUE INVEST.	RETURN
1983	1135	0	0	0	0	1135	0	0	0	1-0000	1135	0
1984	14315	0	0	0	0	12765	0	0	0	0.8920	12804	0
1985	33563	0	0	0	0	26708	0	0	0	0.7957	26853	0
1986	26819	0	0	0	0	19037	0	0	0	0.7098	19193	0
1987	0	-5852	0	0	3920	2482	0	0	0	0.6401	2509	0
1988	0	-2235	5623	8149	11537	6517	0	0	0	0.5726	6606	0
1989	0	-488	5623	8149	13284	6693	0	0	0	0.5122	6803	0
1990	0	58	5623	8149	14830	6216	0	0	0	0.4581	6336	0
1991	3205	1421	5623	7335	14378	5765	0	0	0	0.4098	5891	0
1992	0	2236	5623	6520	14378	5143	0	0	0	0.3665	5270	0
1993	0	3051	5623	5705	14378	4587	0	0	0	0.3278	4714	0
1994	1256	3865	5623	4890	14378	4092	0	0	0	0.2932	368	0
1995	0	4680	5623	4075	14378	3650	0	0	0	0.2623	3771	0
1996	3205	5455	5623	3260	14378	3256	0	0	0	0.2346	752	0
1997	0	7638	4295	2445	14378	2905	0	0	0	0.2099	3745	0
1998	0	8453	4295	1630	14378	2591	0	0	0	0.1877	2429	0
1999	0	5268	4295	815	14378	2311	0	0	0	0.1679	2150	0
2000	0	10082	4295	0	14378	2062	0	0	0	0.1502	1902	0
2001	-14705	10082	4295	0	14378	1839	0	0	0	0.1343	-2002	0
TOTAL	68593				200726	60111			192987		60416	60416

***** INTERNAL RATE OF RETURN ***** 12.10 PER CENT (BEFORE TAX) 11.80 PER CENT (AFTER TAX)
 ***** PAY-OUT PERIOD ***** 7.48 YEAR (BEFORE TAX) 7.48 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

		SOURCE OF FUNDS
LAND AND SITE IMPROVEMENT	1768	PAID-UP SHARE CAPITAL
MACHINERY AND EQUIPMENT	49779	LONG TERM DEBT
CIVIL AND BUILDING	7149	SHORT TERM DEBT
LOG HANDLING EQUIPMENT (1)	3205	FINANCIAL RESOURCES
LOG HANDLING EQUIPMENT (2)	3205	
LOG HANDLING EQUIPMENT (3)	3205	
TRANSPORTATION EQUIPMENT (1)	1256	
TRANSPORTATION EQUIPMENT (2)	1256	
CONSTRUCTED FACILITIES	69055	
PRE-INVEST AND START-UP EXP	4163	
INTEREST DURING CONSTRUCTION	9110	
TOTAL FIXED CAPITAL	84096	
INITIAL WORKING CAPITAL	8512	
TOTAL CAPITAL COST	92608	

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY - (US\$ 1000)

YEAR	SHARE CAPITAL (CUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH	
									OUT-FLOW	IN-FLC
1983	259.	0.	0.	0.	0.	0.	0.	1.00000	259.	0.
1984	3282.	0.	0.	0.	0.	0.	0.	0.91890	3016.	0.
1985	7939.	0.	0.	0.	0.	0.	0.	0.84437	6703.	0.
1986	7042.	0.	0.	0.	0.	0.	0.	0.77585	5464.	0.
1987	0.	-9552.	0.	-9552.	5623.	0.	-4230.	0.71297	0.	-3016.
1988	0.	-2239.	0.	-2239.	5623.	0.	3387.	0.65515	0.	2219.
1989	0.	-466.	0.	-466.	5623.	0.	5134.	0.60201	0.	3091.
1990	0.	58.	0.	58.	5623.	7409.	-1728.	0.55319	0.	-956.
1991	0.	1421.	0.	1421.	5623.	7409.	-365.	0.50832	0.	-186.
1992	0.	2236.	0.	2236.	5623.	7409.	450.	0.46710	0.	210.
1993	0.	3051.	0.	3051.	5623.	7409.	1265.	0.42922	0.	543.
1994	0.	3865.	0.	3865.	5623.	7409.	2080.	0.39441	0.	820.
1995	0.	4680.	0.	4680.	5623.	7409.	2894.	0.36242	0.	1049.
1996	0.	5495.	0.	5495.	5623.	7409.	3709.	0.33303	0.	1235.
1997	0.	7638.	1298.	6339.	4295.	7409.	3226.	0.30602	0.	987.
1998	0.	8453.	1437.	7016.	4295.	7409.	3902.	0.28120	0.	1097.
1999	0.	9266.	1575.	7692.	4295.	7409.	4579.	0.25835	0.	1183.
2000	0.	10082.	1714.	8368.	4295.	0.	12604.	0.23744	0.	3007.
2001	-6353.	10082.	1714.	8368.	4295.	0.	12664.	0.21818	-1395.	2763.
TOTAL	12129.						49630.		14047.	14047.
*****	INTERNAL RATE OF RETURN *****			8.83 PER CENT (AFTER TAX)						

***** PAY-OUT PERIOD ***** 11.09 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS		SOURCE OF FUNDS	
LAND AND SITE IMPROVEMENT	1768.	PAID-UP SHARE CAPITAL	18522.
MACHINERY AND EQUIPMENT	49779.	LONG TERM DEBT	74086.
CIVIL AND BUILDING	7149.	SHORT TERM DEBT	0.
LOG HANDLING EQUIPMENT (1)	3205.	FINANCIAL RESOURCES	92608.
LOG HANDLING EQUIPMENT (2)	3205.		
LOG HANDLING EQUIPMENT (3)	3205.		
TRANSPORTATION EQUIPMENT (1)	1256.		
TRANSPORTATION EQUIPMENT (2)	1256.		
CONSTRUCTED FACILITIES	69055.		
PRE-INVEST AND START-UP EXP	4163.		
INTEREST DURING CONSTRUCTION	9110.		
TOTAL FIXED CAPITAL	84096.		
INITIAL WORKING CAPITAL	8512.		
TOTAL CAPITAL COST	92608.		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - INVESTMENT COST 10% UP - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-I DEBT	RETURN BEFORE TAX	DISCOUNT FACTOR	(BEFORE TAX)		(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
							PRESENT VALUE INVEST.	RETURN				PRESENT VALUE INVEST.	RETURN
1983	1387.	0.	0.	0.	0.	1.0000	1387.	0.	0.	0.	1.0000	1387.	0.
1984	17496.	0.	0.	0.	0.	0.9188	16074.	0.	0.	0.	0.9208	16111.	0.
1985	41022.	0.	0.	0.	0.	0.8441	34627.	0.	0.	0.	0.8479	34784.	0.
1986	32779.	0.	0.	0.	0.	0.7755	25421.	0.	0.	0.	0.7808	25594.	0.
1987	0.	-12861.	6872.	9961.	3972.	0.7125	2830.	2830.	5972.	0.	0.7190	0.	2856.
1988	0.	-5280.	6872.	5961.	11553.	0.6546	0.	7563.	0.	0.	0.6621	0.	7649.
1989	0.	-3546.	6872.	5961.	13286.	0.6014	0.	7991.	0.	0.	0.6097	0.	8100.
1990	0.	-3003.	6872.	5961.	13830.	0.5526	0.	7642.	0.	0.	0.5614	0.	7764.
1991	3917.	-1455.	6872.	8964.	14378.	0.5077	1989.	7299.	0.	0.	0.5170	2025.	7433.
1992	0.	-517.	6872.	7968.	14324.	0.4664	0.	6681.	0.	0.	0.4760	0.	6819.
1993	0.	101.	6872.	6972.	13946.	0.4285	0.	5976.	0.	0.	0.4384	0.	6113.
1994	1536.	806.	6872.	5976.	13654.	0.3937	605.	5376.	0.	0.	0.4037	620.	5512.
1995	0.	1344.	6872.	4980.	13246.	0.3617	0.	4792.	0.	0.	0.3717	0.	4924.
1996	3917.	2280.	6872.	3984.	13136.	0.3323	1302.	4366.	0.	0.	0.3423	1341.	4496.
1997	0.	4363.	5250.	2988.	12601.	0.3053	0.	3848.	742.	0.	0.3152	0.	3738.
1998	0.	5437.	5250.	1992.	12679.	0.2805	0.	3557.	924.	0.	0.2902	0.	3412.
1999	0.	6558.	5250.	556.	12804.	0.2577	0.	3300.	1115.	0.	0.2673	0.	3124.
2000	0.	7810.	5250.	0.	13060.	0.2368	0.	3094.	1328.	0.	0.2461	0.	2887.
2001	-18217.	5128.	5250.	0.	14378.	0.2176	-3963.	3128.	1552.	0.	0.2266	-4128.	2907.
TOTAL	83836.				190845.		77441.	77441.	185185.			77734.	77734.

***** INTERNAL RATE OF RETURN ***** 8.8% PER CENT (BEFORE TAX) 8.60 PER CENT (AFTER TAX)
 ***** PAY-OUT PERIOD ***** 9.08 YEAR (BEFORE TAX) 9.00 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

	2161.	60841.	8737.	3917.	3917.	1536.	1536.	84401.	5088.	11134.	102784.	10404.	113188.
LAND AND SITE IMPROVEMENT	2161.												
MACHINERY AND EQUIPMENT	60841.												
CIVIL AND BUILDING	8737.												
LCG HANDLING EQUIPMENT (1)	3917.												
LCG HANDLING EQUIPMENT (2)	3917.												
LCG HANDLING EQUIPMENT (3)	3917.												
TRANSPORTATION EQUIPMENT (1)	1536.												
TRANSPORTATION EQUIPMENT (2)	1536.												
CONSTRUCTED FACILITIES	84401.												
PRE-INVEST AND START-UP EXP	5088.												
INTEREST DURING CONSTRUCTION	11134.												
TOTAL FIXED CAPITAL	102784.												
INITIAL CRACKING CAPITAL	10404.												
TOTAL CAPITAL COST	113188.												

SOURCE OF FUNDS

PAID-UP SHARE CAPITAL	22638.
LONG TERM DEBT	90550.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	113188.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY - (US\$ 1000)

SHARE CAPITAL YEAR (OUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH	
								OUT-FLOW	IN-FLOW
1983	317	0	0	0	0	0	0.0	0	0
1984	4011	0	0	0	0	0	0.0	0	0
1985	9703	0	0	0	0	0	0.0	0	0
1986	8607	0	0	0	0	0	0.0	0	0
1987	0	0	-12861	6872	0	-5989	0.0	0	0
1988	0	0	-5280	6872	0	1593	0.0	0	0
1989	0	0	-3546	6872	0	3326	0.0	0	0
1990	0	0	-3003	6872	9055	-5186	0.0	0	0
1991	0	0	-1459	6872	9055	-3642	0.0	0	0
1992	0	0	-517	6872	5055	-2700	0.0	0	0
1993	0	0	101	6872	5055	-2082	0.0	0	0
1994	0	0	806	6872	5055	-1377	0.0	0	0
1995	0	0	1354	6872	5055	-789	0.0	0	0
1996	0	0	2280	6872	5055	97	0.0	0	0
1997	0	0	4363	5250	9055	-184	0.0	0	0
1998	0	0	5437	5250	5055	708	0.0	0	0
1999	0	0	6558	5443	5055	1636	0.0	0	0
2000	0	0	7810	6482	0	11734	0.0	0	0
2001	-7813	0	7576	5250	0	12826	0.0	0	0
TOTAL	14825	0	0	0	0	9971	0.0	0	0
*****	INTERNAL RATE OF RETURN *****		C-U PER CENT (AFTER TAX)						

SUM OF THE COST IS LARGER THAN THE ACCUMULATED RETURN, SO THAT IRR WILL BE GOT IN NEGATIVE QUANTITY
 ***** PAY-OUT PERIOD(YEARS) ***** THE SHARE CAPITAL CAN NOT BE PAID OUT WITHIN THE PROJECT LIFE (AFTER TAX BASE)

CAPITAL REQUIREMENTS		SOURCE OF FUNDS	
LAND AND SITE IMPROVEMENT	2161	PAID-UP SHARE CAPITAL	22638
MACHINERY AND EQUIPMENT	60841	LONG TERM DEBT	90550
CIVIL AND BUILDING	8737	SHORT TERM DEBT	0
LOG HANDLING EQUIPMENT (1)	3917	FINANCIAL RESOURCES	113188
LOG HANDLING EQUIPMENT (2)	3917		
LOG HANDLING EQUIPMENT (3)	3917		
TRANSPORTATION EQUIPMENT (1)	1536		
TRANSPORTATION EQUIPMENT (2)	1536		
CONSTRUCTED FACILITIES	84401		
PRE-INVEST AND START-UP EXP	5088		
INTEREST DURING CONSTRUCTION	11134		
TOTAL FIXED CAPITAL	102784		
INITIAL WORKING CAPITAL	10404		
TOTAL CAPITAL COST	113188		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - OPERATING COST 10% DOWN - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST CN	RETURN BEFORE TAX	DISCOUNT FACTOR	(BEFORE TAX)		(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
							PRESENT VALUE INVEST.	RETURN				PRESENT VALUE INVEST.	RETURN
1983	1261.	0.	0.	0.	0.	1.0000	1261.	0.	0.	0.	1.0000	1261.	0.
1984	15905.	0.	0.	0.	0.	0.8990	14299.	0.	0.	0.	0.9015	14338.	0.
1985	37253.	0.	0.	0.	0.	0.8083	30143.	0.	0.	0.	0.8127	30307.	0.
1986	25759.	0.	0.	0.	0.	0.7267	21634.	0.	0.	0.	0.7326	21831.	0.
1987	0.	-10237.	6247.	8305.	4315.	0.6533	2819.	0.	4315.	0.	0.6604	0.	2850.
1988	0.	-2452.	6247.	8305.	12101.	0.5874	0.	0.	12101.	0.	0.5954	0.	7204.
1989	0.	-676.	6247.	8305.	13877.	0.5281	0.	0.	13877.	0.	0.5367	0.	7448.
1990	0.	-130.	6247.	8305.	14623.	0.4748	0.	0.	14623.	0.	0.4838	0.	6978.
1991	3561.	1249.	6247.	7475.	14971.	0.4268	1520.	0.	14971.	0.	0.4362	1553.	6530.
1992	0.	2079.	6247.	6644.	14971.	0.3837	0.	0.	14971.	0.	0.3932	0.	5886.
1993	0.	2910.	6247.	5814.	14971.	0.3450	0.	0.	14971.	0.	0.3545	0.	5307.
1994	1396.	3740.	6247.	4983.	14971.	0.3102	433.	0.	14971.	0.	0.3195	446.	4784.
1995	0.	4571.	6247.	4153.	14971.	0.2788	0.	0.	14971.	0.	0.2881	0.	4312.
1996	3561.	5401.	6247.	3322.	14971.	0.2507	893.	0.	14971.	0.	0.2597	925.	3888.
1997	0.	7707.	4773.	2452.	14971.	0.2254	3374.	1310.	13661.	0.	0.2341	0.	3198.
1998	0.	8537.	4773.	1661.	14971.	0.2026	0.	1451.	13519.	0.	0.2110	0.	2853.
1999	0.	5368.	4773.	831.	14971.	0.1822	0.	1593.	13378.	0.	0.1902	0.	2545.
2000	0.	10158.	4773.	0.	14971.	0.1638	0.	1734.	13237.	0.	0.1715	0.	2270.
2001	-16561.	10198.	4773.	0.	14971.	0.1472	-2439.	1734.	13237.	0.	0.1546	-2560.	2046.
TOTAL	76214.			209394.			67764.		201573.			68099.	

***** INTERNAL RATE OF RETURN ***** 11.23 PER CENT (BEFORE TAX) 10.93 PER CENT (AFTER TAX)
 ***** PAY-OUT PERIOD ***** 7.89 YEAR (BEFORE TAX) 7.89 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID CUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

	1964.	1966.	1968.	1970.	1972.	1974.	1976.	1978.	1980.	1982.	1984.	1986.	1988.	1990.	1992.	1994.	1996.	1998.	2000.	2001.	SOURCE OF FUNDS		
LAND AND SITE IMPROVEMENT																						PAID-UP SHARE CAPITAL	
MACHINERY AND EQUIPMENT																							LONG TERM DEBT
CIVIL AND BUILDING																							SHORT TERM DEBT
LOG HANDLING EQUIPMENT (1)																							FINANCIAL RESOURCES
LOG HANDLING EQUIPMENT (2)																							
LOG HANDLING EQUIPMENT (3)																							
TRANSPORTATION EQUIPMENT (1)																							
TRANSPORTATION EQUIPMENT (2)																							
CONSTRUCTED FACILITIES																							
PRE-INVEST AND START-UP EXP																							
INTEREST DURING CONSTRUCTION																							
TOTAL FIXED CAPITAL																							
INITIAL WORKING CAPITAL																							
TOTAL CAPITAL COST																							

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY - (US\$ 1000)

YEAR	SHARE CAPITAL (CUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (1N)	DISCOUNT FACTOR	DISCOUNTED CASH
									OUT-FLCM IN-FLCM
1983	264.	0.	0.	0.	0.	0.	0.	1.00000	264.
1984	3345.	0.	0.	0.	0.	0.	0.	0.90903	3041.
1985	8090.	0.	0.	0.	0.	0.	0.	0.82633	6685.
1986	7177.	0.	0.	0.	0.	0.	0.	0.75116	5391.
1987	0.	-10237.	0.	-10237.	6247.	0.	-3990.	0.68282	-2725.
1988	0.	-2452.	0.	-2452.	6247.	0.	3795.	0.62070	2356.
1989	0.	-676.	0.	-676.	6247.	0.	5772.	0.56423	3144.
1990	0.	-130.	0.	-130.	6247.	7550.	-1433.	0.51290	-735.
1991	0.	1245.	0.	1245.	6247.	7550.	-54.	0.46624	-25.
1992	0.	2075.	0.	2075.	6247.	7550.	776.	0.42383	329.
1993	0.	2910.	0.	2910.	6247.	7550.	1607.	0.38527	615.
1994	0.	3740.	0.	3740.	6247.	7550.	2437.	0.35022	854.
1995	0.	4571.	0.	4571.	6247.	7550.	3268.	0.31836	1040.
1996	0.	5401.	0.	5401.	6247.	7550.	4096.	0.28946	1186.
1997	0.	7707.	1310.	6396.	4773.	7550.	3619.	0.26307	952.
1998	0.	8537.	1451.	7086.	4773.	7550.	4308.	0.23914	1030.
1999	0.	9368.	1593.	7775.	4773.	7550.	4997.	0.21738	1086.
2000	0.	10152.	1734.	8418.	4773.	0.	13237.	0.19761	2616.
2001	-7103.	10198.	1734.	8464.	4773.	0.	13237.	0.17963	2378.
TOTAL	11773.						55475.		14105.

***** INTERNAL RATE OF RETURN ***** 10.01 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** 10.77 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

		SOURCE OF FUNDS
LAND AND SITE IMPROVEMENT	1964.	PAID-UP SHARE CAPITAL
MACHINERY AND EQUIPMENT	55310.	LONG TERM DEBT
CIVIL AND BUILDING	7543.	SHORT TERM DEBT
LOG HANDLING EQUIPMENT (1)	3561.	FINANCIAL RESOURCES
LOG HANDLING EQUIPMENT (2)	3561.	
LOG HANDLING EQUIPMENT (3)	3561.	
TRANSPORTATION EQUIPMENT (1)	1496.	
TRANSPORTATION EQUIPMENT (2)	1396.	
CONSTRUCTED FACILITIES	76728.	
PRE-INVEST AND START-UP EXP	4625.	
INTEREST DURING CONSTRUCTION	10122.	
TOTAL FIXED CAPITAL	93435.	
INITIAL WORKING CAPITAL	9458.	
TOTAL CAPITAL COST	102897.	

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - OPERATING COST 10% UP -

(US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST CN	RETURN BEFORE TAX	(BEFORE TAX)		DISCOUNT FACTOR	(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
						PRESENT VALUE	RETURN					PRESENT VALUE	RETURN
1983	1261.	0.	0.	0.	0.	1261.	0.	1.0000	0.	0.	1.0000	1261.	0.
1984	15905.	0.	0.	0.	0.	14475.	0.	0.9101	0.	0.	0.9125	14513.	0.
1985	37293.	0.	0.	0.	0.	30886.	0.	0.8282	0.	0.	0.8326	31051.	0.
1986	25759.	0.	0.	0.	0.	22460.	0.	0.7537	0.	0.	0.7598	22640.	0.
1987	0.	-10570.	6247.	8305.	3576.	0.	2453.	0.6855	0.	3576.	0.6933	0.	2480.
1988	0.	-3564.	6247.	8305.	10989.	0.	6860.	0.6242	0.	10989.	0.6326	0.	6952.
1989	0.	-1859.	6247.	8305.	12693.	0.	7211.	0.5681	0.	12693.	0.5773	0.	7327.
1990	0.	-1316.	6247.	8305.	13237.	0.	6843.	0.5170	0.	13237.	0.5267	0.	6972.
1991	3561.	63.	6247.	7475.	13785.	1675.	6486.	0.4705	0.	13785.	0.4806	1712.	6626.
1992	0.	631.	6247.	6644.	13222.	0.	5790.	0.4282	0.	13222.	0.4386	0.	5931.
1993	0.	1367.	6247.	5814.	13428.	0.	5232.	0.3897	0.	13428.	0.4002	0.	5374.
1994	1396.	2207.	6247.	4983.	13437.	495.	4765.	0.3546	0.	13437.	0.3652	510.	4907.
1995	0.	2968.	6247.	4153.	13366.	0.	4314.	0.3227	0.	13366.	0.3332	0.	4455.
1996	3561.	4034.	6247.	3322.	13601.	1046.	3995.	0.2937	0.	13601.	0.3041	1083.	4136.
1997	0.	6221.	4773.	2452.	13485.	0.	3604.	0.2673	1358.	12427.	0.2775	0.	3448.
1998	0.	7351.	4773.	1661.	13785.	0.	3353.	0.2432	1250.	12535.	0.2532	0.	3174.
1999	0.	8182.	4773.	831.	13785.	0.	3051.	0.2214	1391.	12394.	0.2310	0.	2863.
2000	0.	5012.	4773.	0.	13785.	0.	2777.	0.2014	1532.	12253.	0.2108	0.	2583.
2001	-16561.	5012.	4773.	0.	13785.	-3036.	2527.	0.1833	1532.	12253.	0.1924	-3186.	2357.
TOTAL	76214.				190262.	69261.	69261.			183500.		69584.	69584.

***** INTERNAL RATE OF RETURN ***** 9.88 PER CENT (BEFORE TAX) 9.29 PER CENT (AFTER TAX)
 ***** PAY-OUT PERIOD ***** 8.62 YEAR (BEFORE TAX) 8.62 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

LAND AND SITE IMPROVEMENT	1964.	
MACHINERY AND EQUIPMENT	55310.	
CIVIL AND BUILDING	7943.	
LOG HANDLING EQUIPMENT (1)	3561.	
LOG HANDLING EQUIPMENT (2)	3561.	
LOG HANDLING EQUIPMENT (3)	3561.	
TRANSPORTATION EQUIPMENT (1)	1396.	
TRANSPORTATION EQUIPMENT (2)	1396.	
CONSTRUCTED FACILITIES	76728.	
PRE-INVEST AND START-UP EXP	4625.	
INTEREST DURING CONSTRUCTION	10122.	
TOTAL FIXED CAPITAL	93435.	
INITIAL WORKING CAPITAL	9458.	
TOTAL CAPITAL COST	102897.	

SOURCE OF FUNDS

PAID-UP SHARE CAPITAL	18876.
LONG TERM DEBT	75503.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	94379.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY -

(US\$ 1000)

YEAR	SHARE CAPITAL (OUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH	
									OUT-FLCM	IN-FLCM
1983	264.	0.	0.	0.	0.	0.	0.	1.00000	264.	0.
1984	3345.	0.	0.	0.	0.	0.	0.	0.94429	3155.	0.
1985	8090.	0.	0.	0.	0.	0.	0.	0.85165	7214.	0.
1986	7177.	0.	0.	0.	0.	0.	0.	0.84202	6043.	0.
1987	0.	-10976.	0.	-10976.	6247.	0.	-4729.	0.79511	0.	-3760.
1988	0.	-3564.	0.	-3564.	6247.	0.	2684.	0.75082	0.	2015.
1989	0.	-1855.	0.	-1855.	6247.	0.	4384.	0.70900	0.	3111.
1990	0.	-1316.	0.	-1316.	6247.	7550.	-2619.	0.66950	0.	-1753.
1991	0.	63.	0.	63.	6247.	7550.	-1240.	0.63220	0.	-784.
1992	0.	631.	0.	631.	6247.	7550.	-672.	0.59699	0.	-401.
1993	0.	1367.	0.	1367.	6247.	7550.	64.	0.56373	0.	36.
1994	0.	2207.	0.	2207.	6247.	7550.	904.	0.53233	0.	481.
1995	0.	2966.	0.	2966.	6247.	7550.	1665.	0.50267	0.	837.
1996	0.	4032.	0.	4032.	6247.	7550.	2729.	0.47467	0.	1295.
1997	0.	6221.	1058.	5163.	4773.	7550.	2386.	0.44823	0.	1089.
1998	0.	7351.	1250.	6101.	4773.	7550.	3324.	0.42326	0.	1407.
1999	0.	8182.	1391.	6791.	4773.	7550.	4013.	0.39968	0.	1604.
2000	0.	9012.	1532.	7480.	4773.	0.	12253.	0.37742	0.	4624.
2001	-7103.	9012.	1532.	7480.	4773.	0.	12253.	0.35639	-2531.	4367.
TOTAL	11773.						37401.		14148.	14148.

***** INTERNAL RATE OF RETURN ***** 5.90 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** 13.49 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

LAND AND SITE IMPROVEMENT	1964.
MACHINERY AND EQUIPMENT	55310.
CIVIL AND BUILDING	7943.
LOG HANDLING EQUIPMENT (1)	3561.
LOG HANDLING EQUIPMENT (2)	3561.
LOG HANDLING EQUIPMENT (3)	3561.
TRANSPORTATION EQUIPMENT (1)	1396.
TRANSPORTATION EQUIPMENT (2)	1396.
CONSTRUCTED FACILITIES	76728.
PRE-INVEST AND START-UP EXP	4625.
INTEREST DURING CONSTRUCTION	10122.
TOTAL FIXED CAPITAL	93439.
INITIAL WORKING CAPITAL	9458.
TOTAL CAPITAL COST	102897.

SOURCE OF FUNDS

PAID-UP SHARE CAPITAL	18876.
LONG TERM DEBT	75503.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	94379.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY - (US\$ 1000)

YEAR	SHARE CAPITAL (CUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH
									OUT-FLCm IN-FLCm
1983	258.	C.	0.	0.	0.	0.	0.	1.00000	258. 0.
1984	3250.	C.	0.	0.	0.	0.	0.	0.81288	2647. 0.
1985	7747.	C.	0.	0.	0.	0.	0.	0.66077	5119. 0.
1986	6512.	0.	0.	0.	0.	0.	0.	0.53713	3498. 0.
1987	0.	-5327.	C.	-5327.	5695.	0.	366.	0.43662	161. 2833.
1988	0.	2288.	0.	2288.	5695.	0.	7983.	0.35492	2807. 776.
1989	0.	4034.	C.	4034.	5695.	0.	9730.	0.28850	686. 526.
1990	0.	4580.	0.	4580.	5695.	7109.	3167.	0.23452	602. 457.
1991	0.	5484.	C.	5484.	5695.	7109.	4070.	0.19063	396. 261.
1992	0.	5835.	0.	5835.	5695.	7109.	4426.	0.15496	226. 194.
1993	0.	6194.	C.	6194.	5695.	7109.	4781.	0.12597	376. 306.
1994	0.	6550.	C.	6550.	5695.	7109.	5136.	0.10235	306. 11350.
1995	0.	6905.	0.	6905.	5695.	7109.	5492.	0.08323	
1996	0.	7261.	C.	7261.	5695.	7109.	5847.	0.06760	
1997	0.	8535.	1452.	7083.	4773.	7109.	4751.	0.05500	
1998	0.	8894.	1512.	7382.	4773.	7109.	5046.	0.04471	
1999	0.	9250.	1572.	7677.	4773.	7109.	5341.	0.03634	
2000	0.	9605.	1633.	7972.	4773.	0.	5745.	0.02954	
2001	-7103.	9605.	1633.	7972.	4773.	0.	12745.	0.02401	-171.
TOTAL	10665.						91029.		11350. 11350.

***** INTERNAL RATE OF RETURN ***** 23.02 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** 2.97 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

LAND AND SITE IMPROVEMENT	1964.
MACHINERY AND EQUIPMENT	55310.
CIVIL AND BUILDING	7943.
LCG HANGLING EQUIPMENT (1)	3561.
LCG HANGLING EQUIPMENT (2)	3561.
LCG HANGLING EQUIPMENT (3)	3561.
TRANSPORTATION EQUIPMENT (1)	1396.
TRANSPORTATION EQUIPMENT (2)	1396.
UNSTRUCTURED FACILITIES	76728.
PRE-INVEST AND START-UP EXP	4625.
INTEREST DURING CONSTRUCTION	4602.
TOTAL FIXED CAPITAL	87919.
INITIAL WORKING CAPITAL	9458.
TOTAL CAPITAL COST	97377.

SOURCE OF FUNDS

PAID-UP SHARE CAPITAL	17722.
LONG TERM DEBT	71087.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	88859.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 LOAN REPAYMENT SCHEDULE FOR LONG TERM DEBT
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

AMOUNT OF DEBT		INTEREST RATE		REPAYMENT		10 YEAR-EQUAL-INSTALLMENT-REPAYMENT (ANNUAL REPAYMENT)		BALANCE AFT. PAYMENT	
YEAR	SER. NO.	PRINCIPAL	INTEREST	DEBT SERVICE	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
1983	1	0.	0.	0.	87918.	87918.	87918.	87918.	87918.
1984	2	0.	0.	0.	87918.	87918.	87918.	87918.	87918.
1985	3	0.	0.	0.	87918.	87918.	87918.	87918.	87918.
1986	4	0.	0.	0.	87918.	87918.	87918.	87918.	87918.
1987	5	0.	9671.	9671.	87918.	87918.	87918.	87918.	87918.
1988	6	0.	9671.	9671.	87918.	87918.	87918.	87918.	87918.
1989	7	0.	9671.	9671.	87918.	87918.	87918.	87918.	87918.
1990	8	8792.	9671.	18463.	79126.	79126.	79126.	79126.	79126.
1991	9	8792.	8704.	17496.	70334.	70334.	70334.	70334.	70334.
1992	10	8792.	7737.	16529.	61543.	61543.	61543.	61543.	61543.
1993	11	8792.	6770.	15561.	52751.	52751.	52751.	52751.	52751.
1994	12	8792.	5803.	14594.	43959.	43959.	43959.	43959.	43959.
1995	13	8792.	4835.	13627.	35167.	35167.	35167.	35167.	35167.
1996	14	8792.	3868.	12660.	26375.	26375.	26375.	26375.	26375.
1997	15	8792.	2901.	11693.	17584.	17584.	17584.	17584.	17584.
1998	16	8792.	1934.	10726.	8792.	8792.	8792.	8792.	8792.
1999	17	8792.	967.	9759.	0.	0.	0.	0.	0.
2000	18	0.	0.	0.	0.	0.	0.	0.	0.
2001	19	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL					87918.	82203.	170121.	0.	0.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 INCOME STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
SALES REVENUE	21661.	32600.	34701.	34774.	34774.	34774.	34774.	34774.	34774.	34774.	34774.
COST OF SALES	25453.	28320.	28359.	28016.	27340.	27340.	27340.	27340.	27340.	27340.	25641.
VARIABLE COST	7051.	10306.	10848.	10848.	10848.	10848.	10848.	10848.	10848.	10848.	10848.
DEPRECIATION & AMJRTIZATION	7257.	7257.	7257.	7257.	7257.	7257.	7257.	7257.	7257.	7257.	5558.
OTHER FIXED COST	12251.	11135.	10313.	9911.	9235.	9235.	9235.	9235.	9235.	9235.	9235.
(INC) IN PRODUCT INVENTORIES	-1107.	-378.	-59.	0.	0.	0.	0.	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES	-3792.	4280.	6342.	6757.	7433.	7433.	7433.	7433.	7433.	7433.	9133.
LESS. SALES EXPENSES	216.	325.	346.	347.	347.	347.	347.	347.	347.	347.	347.
OPERATING PROFIT OR (LOSS)	-4008.	3955.	5996.	6411.	7087.	7087.	7087.	7087.	7087.	7087.	8786.
LESS. INTEREST											
ON LONG TERM DEBT	9671.	9671.	9671.	9671.	8704.	7737.	6770.	5803.	4835.	3868.	2901.
ON SHORT TERM DEBT	0.	135.	167.	0.	402.	1398.	1900.	2336.	2894.	3199.	3909.
NET PROFIT OR (LOSS) BEFORE TAX	-13679.	-5851.	-3842.	-3260.	-2019.	-2048.	-1583.	-1052.	-643.	20.	1976.
LESS. INCOME TAX	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	336.
NET PROFIT CR (LOSS) AFTER TAX	-13679.	-5851.	-3842.	-3260.	-2019.	-2048.	-1583.	-1052.	-643.	20.	1640.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 INCOME STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1998	1999	2000	2001
SALES REVENUE	34774.	34774.	34774.	34774.
CCST OF SALES	25641.	25641.	25641.	25641.
VARIABLE CCST	10848.	10848.	10848.	10848.
DEPRECIATION & AMORTIZATION	5558.	5558.	5558.	5558.
OTHER FIXED COST	9235.	9235.	9235.	9235.
(INC) IN PRODUCT INVENTORIES	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES	9133.	9133.	9133.	9133.
LESS. SALES EXPENSES	347.	347.	347.	347.
OPERATING PROFIT OR (LOSS)	8786.	8786.	8786.	8786.
LESS. INTEREST				
ON LONG TERM DEBT	1934.	967.	0.	0.
ON SHORT TERM DEBT	4085.	4198.	4209.	2877.
NET PROFIT OR (LOSS) BEFORE TAX	2767.	3621.	4577.	5909.
LESS. INCOME TAX	470.	616.	778.	1005.
NET PROFIT OR (LOSS) AFTER TAX	2296.	3006.	3799.	4905.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 FUNDS FLOW STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
SOURCES OF FUNDS											
CASH GENERATED FROM OPERATION	1528.	19672.	47190.	41508.	4802.	12680.	13259.	16542.	24333.	27916.	31033.
PROFIT BEFORE TAX, INTEREST DEPRECIATION & AMORTIZATION	0.	0.	0.	0.	-4008.	3955.	5996.	6411.	7087.	7087.	7087.
FINANCIAL RESOURCES	1528.	19672.	47190.	41508.	964.	1196.	0.	2874.	9989.	13571.	16689.
SHARE CAPITAL	306.	3934.	9438.	8301.	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	1222.	15737.	37752.	33207.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	904.	1196.	0.	2874.	9989.	13571.	16689.
INCREASE IN ACCT PAYABLE	0.	0.	0.	0.	588.	271.	45.	0.	0.	0.	0.
USES OF FUNDS											
INVESTMENT IN FIXED ASSET	1524.	19670.	47180.	32398.	13927.	12680.	11372.	18469.	24333.	27916.	31033.
LAND AND SITE IMPROVEMENT	0.	422.	1014.	517.	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	0.	17246.	41628.	21118.	0.	0.	0.	0.	3561.	0.	0.
PRE-INVEST. & START-UP EXP	1455.	1049.	844.	1823.	0.	0.	0.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTION	64.	952.	3688.	7117.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET OTHER THAN CASH	0.	0.	0.	1823.	4256.	1910.	338.	6.	0.	0.	0.
INCR(DECR) ACC T RECEIVABLE	0.	0.	0.	0.	1805.	912.	175.	6.	0.	0.	0.
INCR(DECR) IN INVENTORIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PRGCLCTS	0.	0.	0.	0.	1107.	378.	59.	0.	0.	0.	0.
MATERIALS	0.	0.	0.	1823.	1344.	620.	103.	0.	0.	0.	0.
DEBT SERVICES	0.	0.	0.	0.	9671.	10770.	11035.	18403.	20772.	27916.	31033.
REPAYMENT OF LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	8792.	8792.	8792.	8792.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	964.	1196.	0.	2874.	9989.	13571.
INTEREST ON LONG TERM DEBT	0.	0.	0.	0.	5671.	9671.	9671.	9671.	8704.	7737.	8770.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	135.	167.	0.	402.	1398.	1900.
INCOME TAX PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	4.	2.	10.	5110.	-9125.	-0.	1926.	-1926.	0.	0.	0.
BEGINNING CASH BALANCE	0.	4.	5.	15.	9125.	0.	0.	1926.	0.	0.	0.
ENDING CASH BALANCE	4.	5.	15.	9125.	0.	0.	1926.	0.	0.	0.	0.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 FUNDS FLOW STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1994	1995	1996	1997	1998	1999	2000	2001
SOURCES OF FUNDS								
CASH GENERATED FROM OPERATION	35016.	37192.	42268.	43526.	44329.	44412.	34893.	24203.
PROFIT BEFORE TAX, INTEREST	7087.	7087.	7087.	8786.	8786.	8786.	8786.	8786.
DEPRECIATION & AMORTIZATION	7257.	7257.	7257.	5558.	5558.	5558.	5558.	5558.
FINANCIAL RESOURCES	20671.	22848.	27924.	29182.	29985.	30068.	20549.	9859.
SHARE CAPITAL	C.	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	C.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	20671.	22848.	27924.	29182.	29985.	30068.	20549.	9859.
INCREASE IN ACCT PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.
USES OF FUNDS								
INVESTMENT IN FIXED ASSET	1356.	0.	3561.	C.	0.	0.	0.	0.
LAND AND SITE IMPROVEMENT	0.	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	1356.	0.	3561.	C.	0.	0.	0.	0.
PRE-INVEST. & START-UP EXP	C.	0.	0.	0.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTION	C.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET	0.	0.	0.	C.	0.	0.	0.	0.
OTHER THAN CASH	0.	0.	0.	C.	0.	0.	0.	0.
INCR(DECR) ACC T RECEIVABLE	0.	0.	0.	C.	0.	0.	0.	0.
INCR(DECR) IN INVENTORIES	0.	0.	0.	C.	0.	0.	0.	0.
PRODUCTS	C.	0.	0.	C.	0.	0.	0.	0.
MATERIALS	C.	0.	0.	0.	0.	0.	0.	0.
DEBT SERVICES	33620.	37192.	38707.	43526.	43993.	43942.	34277.	23425.
REPAYMENT OF LONG TERM DEBT	8792.	8792.	8792.	8792.	8792.	8792.	0.	0.
REPAYMENT OF SHORT TERM DEBT	16689.	20671.	22848.	27924.	29182.	29985.	30068.	20549.
INTEREST ON LONG TERM DEBT	5803.	4835.	3868.	2901.	1934.	967.	0.	0.
INTEREST ON SHORT TERM DEBT	2336.	2894.	3199.	3909.	4085.	4198.	4209.	2877.
INCOME TAX PAYMENT	C.	C.	0.	0.	336.	470.	616.	778.
DIVIDENDS PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	0.	0.	0.	C.	0.	0.	0.	0.
BEGINNING CASH BALANCE	0.	0.	0.	0.	0.	0.	0.	0.
ENDING CASH BALANCE	0.	0.	0.	0.	0.	0.	0.	0.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
ASSETS	1528.	21199.	68389.	109897.	97770.	92423.	87430.	78252.	74555.	67298.	60040.
CURRENT ASSETS	4.	5.	15.	10948.	6079.	7989.	10253.	8332.	8332.	8332.	8332.
CASH	4.	5.	15.	9125.	0.	0.	1926.	0.	0.	0.	0.
ACCOUNTS RECEIVABLE	0.	0.	0.	0.	1805.	2717.	2852.	2898.	2898.	2898.	2898.
INVENTORIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PRODUCTS	0.	0.	0.	0.	1107.	1484.	1543.	1543.	1543.	1543.	1543.
MATERIALS	0.	0.	0.	1823.	3167.	3788.	3891.	3891.	3891.	3891.	3891.
NET FIXED ASSETS	1524.	21194.	68374.	98949.	91691.	84434.	77177.	69919.	66223.	58965.	51708.
INVESTMENT	1524.	21194.	68374.	98949.	98949.	98949.	98949.	98949.	102510.	102510.	102510.
LAND & SITE IMPROVEMENT	5.	427.	1447.	1964.	1964.	1964.	1964.	1964.	1964.	1964.	1964.
CONSTRUCTED FACILITIES	C.	17246.	58875.	79993.	79993.	79993.	79993.	79993.	83554.	83554.	83554.
PRE-INVEST. & START-UP EXP	1455.	2504.	3348.	5171.	5171.	5171.	5171.	5171.	5171.	5171.	5171.
INTEREST DURING CONSTRUCTN	64.	1016.	4704.	11821.	11821.	11821.	11821.	11821.	11821.	11821.	11821.
LESS-DEPRECIATN & AMORTIZTN	0.	0.	0.	0.	7257.	14515.	21772.	29030.	36287.	43544.	50802.
LIABILITIES	1222.	16959.	54711.	37918.	49470.	89973.	84822.	82504.	81227.	76018.	70343.
CURRENT LIABILITIES	0.	0.	0.	0.	1552.	2055.	9696.	12570.	19685.	23267.	26384.
ACCOUNTS PAYABLE	0.	0.	0.	0.	588.	859.	904.	904.	904.	904.	904.
INCOME TAX PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CURRENT PORTION OF DEBT	C.	0.	0.	0.	0.	0.	8792.	8792.	8792.	8792.	8792.
LONG TERM DEBT	C.	0.	0.	0.	964.	1196.	0.	2874.	9989.	13571.	16689.
SHORT TERM DEBT	C.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FIXED LIABILITIES	1222.	16959.	54711.	87918.	87918.	87918.	79126.	70334.	61543.	52751.	43959.
LONG TERM DEBT BALANCE	1222.	16959.	54711.	87918.	87918.	87918.	79126.	70334.	61543.	52751.	43959.
STOCK HOLDERS EQUITY	406.	4240.	13678.	21975.	8300.	2450.	-1392.	-4653.	-6672.	-8720.	-10303.
SHARE CAPITAL	300.	4240.	13678.	21975.	21979.	21979.	21979.	21979.	21979.	21979.	21979.
RETAINED EARNINGS	0.	0.	0.	0.	-13679.	-19529.	-23371.	-26632.	-28651.	-30699.	-32282.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 - CASE (C) : PRINTING & WRITING PAPER -

(US 1000)

	1994	1995	1996	1997	1998	1999	2000	2001
ASSETS	54179.	46922.	43225.	37667.	32109.	26551.	20993.	15435.
CURRENT ASSETS	8332.	8332.	8332.	8332.	8332.	8332.	8332.	8332.
CASH	0.	0.	0.	0.	0.	0.	0.	0.
ACCOUNTS RECEIVABLE	2898.	2898.	2898.	2898.	2898.	2898.	2898.	2898.
INVENTORIES	1543.	1543.	1543.	1543.	1543.	1543.	1543.	1543.
PRODUCTS	3891.	3891.	3891.	3891.	3891.	3891.	3891.	3891.
MATERIALS								
NET FIXED ASSETS	45847.	38589.	34693.	29335.	23777.	18219.	12660.	7102.
INVESTMENT	103906.	103906.	107467.	107467.	107467.	107467.	107467.	107467.
LAND & SITE IMPROVEMENT	1964.	1964.	1964.	1964.	1964.	1964.	1964.	1964.
CONSTRUCTED FACILITIES	84950.	84950.	8511.	8511.	8511.	8511.	8511.	8511.
PRE-INVEST. & START-UP EXP	5171.	5171.	5171.	5171.	5171.	5171.	5171.	5171.
INTEREST DURING CONSTRUCTN	11821.	11821.	11821.	11821.	11821.	11821.	11821.	11821.
LESS-DEPRECIATN & AMORTIZTN	58059.	65317.	72574.	78132.	83690.	89248.	94806.	100364.
LIABILITIES	65534.	58919.	55203.	48005.	40151.	31587.	22231.	11768.
CURRENT LIABILITIES	30367.	32544.	37620.	39214.	40151.	31587.	22231.	11768.
ACCOUNTS PAYABLE	904.	904.	904.	904.	904.	904.	904.	904.
INCOME TAX PAYABLE	0.	0.	0.	336.	470.	616.	778.	1005.
DIVIDENDS PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.
CURRENT PORTION OF DEBT	8792.	8792.	8792.	8792.	8792.	8792.	8792.	8792.
LONG TERM DEBT	20671.	22848.	27924.	29182.	25985.	30068.	20549.	9659.
SHORT TERM DEBT								
FIXED LIABILITIES	35167.	26375.	17584.	8792.	-0.	-0.	-0.	-0.
LONG TERM DEBT BALANCE	35167.	26375.	17584.	8792.	-0.	-0.	-0.	-0.
STOCK HOLDERS EQUITY	-11355.	-11998.	-11978.	-10338.	-8042.	-5036.	-1238.	3667.
SHARE CAPITAL	21979.	21979.	21979.	21975.	21979.	21979.	21979.	21979.
RETAINED EARNINGS	-33334.	-33977.	-33957.	-32317.	-30021.	-27015.	-23217.	-18312.

*** FULP AND PAPER MILL PROJECT IN ECUADOR ***
 PRODUCTION AND SALES PLAN
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
CAPACITY (PAPER)	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.
CAPACITY UTILIZATION	0.650	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRODUCTION	15015.	21945.	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.
INCREASE IN INVENTORY	626.	289.	48.	0.	0.	0.	0.	0.	0.	0.	0.
SALES VOLUME	14385.	21656.	23052.	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.
UNIT PRICE	1.4050	1.4050	1.4050	1.4050	1.4050	1.4050	1.4050	1.4050	1.4050	1.4050	1.4050
SALES REVENUE	20217.	30427.	32388.	32456.	32456.	32456.	32456.	32456.	32456.	32456.	32456.
CAPACITY (SANLOG)	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.
CAPACITY UTILIZATION	0.650	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRODUCTION	30753.	44946.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.
INCREASE IN INVENTORY	1281.	591.	99.	0.	0.	0.	0.	0.	0.	0.	0.
SALES VOLUME	29471.	44355.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.	47312.
UNIT PRICE	0.0450	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490	0.0490
SALES REVENUE	1444.	2173.	2313.	2318.	2318.	2318.	2318.	2318.	2318.	2318.	2318.
*** TOTAL SALES REVENUE ***	21661.	32600.	34701.	34774.	34774.	34774.	34774.	34774.	34774.	34774.	34774.
*** TOTAL SALES VOLUME ***	43861.	66011.	70265.	70412.	70412.	70412.	70412.	70412.	70412.	70412.	70412.
*** AVERAGE SALES PRICE ***	0.4539	0.4939	0.4939	0.4939	0.4939	0.4939	0.4939	0.4939	0.4939	0.4939	0.4939

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PRODUCTION AND SALES PLAN
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1958	1959	2000	2001
CAPACITY (PAPER)	23100.	23100.	23100.	23100.
CAPACITY UTILIZATION	1.000	1.000	1.000	1.000
REDUCTION	23100.	23100.	23100.	23100.
INCREASE IN INVENTORY	0.	0.	0.	0.
SALES VOLUME	23100.	23100.	23100.	23100.
UNIT PRICE	1.4050	1.4050	1.4050	1.4050
SALES REVENUE	32456.	32456.	32456.	32456.
CAPACITY (SAMPLG)	47312.	47312.	47312.	47312.
CAPACITY UTILIZATION	1.000	1.000	1.000	1.000
PRODUCTION	47312.	47312.	47312.	47312.
INCREASE IN INVENTORY	0.	0.	0.	0.
SALES VOLUME	47312.	47312.	47312.	47312.
UNIT PRICE	0.0490	0.0490	0.0490	0.0490
SALES REVENUE	2318.	2318.	2318.	2318.
*** TOTAL SALES REVENUE ***	34774.	34774.	34774.	34774.
*** TOTAL SALES VOLUME ***	70412.	70412.	70412.	70412.
*** AVERAGE SALES PRICE ***	0.4939	0.4939	0.4939	0.4939

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PRODUCTION COST STATEMENTS
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
PRODUCTION	15015.	21945.	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.	23100.
RAW MATERIAL COST	2511.	3670.	3863.	3863.	3863.	3863.	3863.	3863.	3863.	3863.	3863.
AUXILIARY MATERIALS	4540.	6636.	6985.	6985.	6985.	6985.	6985.	6985.	6985.	6985.	6985.
VARIABLE CCST	7051.	10306.	10848.	10848.	10848.	10848.	10848.	10848.	10848.	10848.	10848.
MACHINERY AND EQUIPMENT	4473.	4473.	4473.	4473.	4473.	4473.	4473.	4473.	4473.	4473.	4473.
CIVIL AND BUILDING	159.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.
LOG HANDLING EQUIPMENT (1)	712.	712.	712.	712.	712.	712.	712.	712.	712.	712.	712.
LOG HANDLING EQUIPMENT (2)	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LOG HANDLING EQUIPMENT (3)	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TRANSPORTATION EQUIPMENT (1)	175.	175.	175.	175.	175.	175.	175.	175.	175.	175.	175.
TRANSPORTATION EQUIPMENT (2)	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEPRECIATION	5558.	5558.	5558.	5558.	5558.	5558.	5558.	5558.	5558.	5558.	5558.
PRE-OPE	517.	517.	517.	517.	517.	517.	517.	517.	517.	517.	517.
I.D.C.	1182.	1182.	1182.	1182.	1182.	1182.	1182.	1182.	1182.	1182.	1182.
AMORTIZATION	1699.	1699.	1699.	1699.	1699.	1699.	1699.	1699.	1699.	1699.	1699.
DEPRECIATION & AMORTIZATION	7257.	7257.	7257.	7257.	7257.	7257.	7257.	7257.	7257.	7257.	7257.
LABOUR COST	6506.	6506.	6506.	6506.	6506.	6506.	6506.	6506.	6506.	6506.	6506.
MANAGEMENT	906.	906.	906.	906.	906.	906.	906.	906.	906.	906.	906.
REPAIR AND MAINTENANCE	1823.	1823.	1823.	1823.	1823.	1823.	1823.	1823.	1823.	1823.	1823.
TECHNICAL ASSISTANCE	3016.	1900.	1078.	676.	0.	0.	0.	0.	0.	0.	0.
DIRECT FIXED COST	12251.	11135.	10313.	5913.	9255.	9235.	9235.	9235.	9235.	9235.	9235.
EX-FACTORY PRODUCTION COST	26560.	28698.	28418.	28016.	27340.	27340.	27340.	27340.	27340.	27340.	27340.
UNIT DIRECT OPERATING COST	1.7685	1.3077	1.2302	1.2128	1.1836	1.1836	1.1836	1.1836	1.1836	1.1836	1.1836
SALES EXPENSES	216.	325.	346.	347.	347.	347.	347.	347.	347.	347.	347.
INTEREST ON LONG TERM DEBT	9671.	9671.	9671.	5671.	8704.	7737.	6770.	5803.	4835.	3868.	2901.
INTEREST ON SHORT TERM DEBT	0.	135.	167.	0.	402.	1398.	1900.	2336.	2894.	3199.	3909.
TOTAL PRODUCTION COST	36446.	38829.	38603.	38034.	36793.	36822.	36357.	35826.	35416.	34754.	32798.
UNIT PRODUCTION COST	2.4273	1.7694	1.6711	1.6465	1.5926	1.5940	1.5739	1.5509	1.5332	1.5045	1.4198

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PRODUCTION COST STATEMENTS
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

	1998	1999	2000	2001
PRODUCTION	23100.	23100.	23100.	23100.
RAW MATERIAL COST	3863.	3863.	3863.	3863.
AUXILIARY MATERIALS	6985.	6985.	6985.	6985.
VARIABLE CCST	10848.	10848.	10848.	10848.
MACHINERY AND EQUIPMENT	4473.	4473.	4473.	4473.
CIVIL AND BUILDING	199.	199.	199.	199.
LOG HANDLING EQUIPMENT (1)	0.	0.	0.	0.
LOG HANDLING EQUIPMENT (2)	0.	0.	0.	0.
LOG HANDLING EQUIPMENT (3)	712.	712.	712.	712.
TRANSPORTATION EQUIPMENT (1)	0.	0.	0.	0.
TRANSPORTATION EQUIPMENT (2)	175.	175.	175.	175.
DEPRECIATION	5558.	5558.	5558.	5558.
PRE-OPE	0.	0.	0.	0.
I.D.C.	0.	0.	0.	0.
AMORTIZATION	0.	0.	0.	0.
DEPRECIATION & AMORTIZATION	5558.	5558.	5558.	5558.
LABOUR CCST	6506.	6506.	6506.	6506.
MANAGEMENT	906.	906.	906.	906.
REPAIR AND MAINTENANCE	1823.	1823.	1823.	1823.
TECHNICAL ASSISTANCE	0.	0.	0.	0.
DIRECT FIXED COST	9235.	9235.	9235.	9235.
EX-FACTORY PRODUCTION CCST	25641.	25641.	25641.	25641.
UNIT DIRECT OPERATING COST	1.1100	1.1100	1.1100	1.1100
SALES EXPENSES	347.	347.	347.	347.
INTEREST ON LONG TERM DEBT	1934.	967.	0.	0.
INTEREST ON SHORT TERM DEBT	4085.	4198.	4209.	2877.
TOTAL PRODUCTION COST	32007.	31153.	30197.	28864.
UNIT PRODUCTION COST	1.3856	1.3486	1.3072	1.2495

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

YEAR	(1) AFT TAX PROFIT -TO- SALES REV S/H EQUITY (PCT)	(2) AFT TAX PROFIT -TO- S/H EQUITY (PCT)	(3) BFR TAX PROFIT -TO- INVESTMT (PCT)	(4) AFT TAX PROFIT -TO- S/CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TC- S/H EQUITY	(9)* PROFIT B-E-P- CAPACITY UTILIZE (PCT)	(10)* CASH B-E-P- SALES PRICE (PRICE)	(11)* CASH B-E-P- CAPACITY UTILIZE (PCT)
1987	-63.1	-164.8	-12.4	-62.2	3.52	1.16	0.34	91./ 9.	123.7	2028.5	92.9
1988	-17.9	-238.8	-5.3	-26.6	3.89	1.32	1.15	97./ 3.	119.6	1457.8	88.8
1989	-11.1	275.9	-3.5	-17.5	1.06	0.50	1.35	102./ -2.	116.2	1359.8	85.5
1990	-9.4	76.1	-3.0	-14.8	0.66	0.23	0.74	107./ -7.	113.8	1712.9	120.3
1991	-5.8	30.3	-1.8	-9.2	0.42	0.15	0.80	112./ -12.	108.6	1659.2	115.1
1992	-5.9	23.5	-1.8	-9.3	0.36	0.12	0.78	120./ -20.	108.7	1660.5	115.2
1993	-6.6	15.4	-1.4	-7.2	0.32	0.11	0.80	131./ -31.	106.7	1640.3	113.2
1994	-3.0	9.3	-0.9	-4.8	0.27	0.10	0.82	148./ -48.	104.5	1617.3	111.0
1995	-1.8	5.4	-0.6	-2.9	0.22	0.09	0.84	189./ -83.	102.7	1599.6	109.2
1996	0.1	-0.2	0.0	0.1	0.22	0.08	0.88	314./ -***	99.9	1570.9	106.4
1997	4.7	-15.9	1.7	7.5	0.21	0.07	0.86	***//669-	91.6	1588.5	108.1
1998	6.6	-28.6	2.3	10.4	0.21	0.07	0.91	0./160.	88.3	1554.3	104.8
1999	8.6	-55.7	3.1	13.7	0.26	0.09	0.98	0./100.	84.6	1517.3	101.2
2000	10.9	-306.9	3.9	17.3	0.37	0.13	0.13	0./100.	80.6	1066.6	57.0
2001	14.1	133.8	5.0	22.3	0.71	0.25	0.25	-0./133.	74.9	1008.9	51.4
AVERAGE1	-5.2	-16.8	-1.0	-5.6	0.88	0.30	0.97	56./ 44.	101.6	1536.2	98.7
AVERAGE2	-3.6	23.7	-0.9	-5.6	0.36	0.13	0.97	116./ -16.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TWO OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - CASE (C) : PRINTING & WRITING PAPER - (US 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	RETURN BEFORE TAX	DISCOUNT FACTOR	(BEFORE TAX)		(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
							PRESENT VALUE INVEST.	RETURN				PRESENT VALUE INVEST.	RETURN
1983	1460.	0.	0.	0.	0.	1.0000	1460.	0.	0.	0.	1.0000	1460.	0.
1984	18718.	0.	0.	0.	0.	0.9367	17533.	0.	0.	0.	0.9381	17560.	0.
1985	63492.	0.	0.	0.	0.	0.8774	38159.	0.	0.	0.	0.8801	38276.	0.
1986	34405.	0.	0.	0.	0.	0.8218	28275.	0.	0.	0.	0.8256	28406.	0.
1987	0.	-13675.	7257.	5671.	3250.	0.7698	2502.	2502.	3250.	0.	0.7746	2517.	2517.
1988	0.	-5851.	7257.	5671.	11078.	0.7211	7988.	7988.	11078.	0.	0.7266	8049.	8049.
1989	0.	-3842.	7257.	5671.	13086.	0.6754	8638.	8638.	13086.	0.	0.6817	8921.	8921.
1990	0.	-3260.	7257.	5671.	13668.	0.6326	8647.	8647.	13668.	0.	0.6395	8741.	8741.
1991	3501.	-2019.	7257.	8704.	13942.	0.5926	2110.	8262.	13942.	0.	0.5999	2136.	8364.
1992	0.	-2048.	7257.	7737.	12946.	0.5551	0.	7186.	12946.	0.	0.5628	7286.	7286.
1993	0.	-1583.	7257.	6770.	12444.	0.5199	6470.	0.	12444.	0.	0.5280	6570.	6570.
1994	1396.	-1052.	7257.	5803.	12008.	0.4870	680.	5848.	12008.	0.	0.4953	691.	5948.
1995	0.	-643.	7257.	4835.	11450.	0.4562	0.	5223.	11450.	0.	0.4647	5321.	5321.
1996	3561.	20.	7257.	3868.	11146.	0.4273	1522.	4762.	11146.	0.	0.4359	1552.	4859.
1997	0.	1976.	5558.	2913.	10435.	0.4002	0.	336.	10099.	0.	0.4090	0.	4130.
1998	0.	2767.	5558.	1934.	10259.	0.3749	0.	470.	9789.	0.	0.3837	0.	3755.
1999	0.	3621.	5558.	967.	10146.	0.3512	0.	616.	9531.	0.	0.3599	0.	3430.
2000	0.	4577.	5558.	0.	10135.	0.3289	0.	778.	9357.	0.	0.3376	0.	3159.
2001	-18051.	5909.	5558.	0.	11468.	0.3081	-5561.	3533.	1005.	10463.	0.3168	-5718.	3314.
TOTAL	28542.				167460.		84177.	84177.	164256.			84365.	84365.

***** INTERNAL RATE OF RETURN ***** 6.76 PER CENT (BEFORE TAX) 6.60 PER CENT (AFTER TAX)
 ***** PAY-OUT PERIOD ***** 10.33 YEAR (BEFORE TAX) 10.34 YEAR (AFTER TAX)
 ***** (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

LAND AND SITE IMPROVEMENT	1964.
MACHINERY AND EQUIPMENT	67092.
CIVIL AND BUILDING	7944.
LOG HANDLING EQUIPMENT (1)	3561.
LOG HANDLING EQUIPMENT (2)	3561.
LOG HANDLING EQUIPMENT (3)	3561.
TRANSPORTATION EQUIPMENT (1)	1396.
TRANSPORTATION EQUIPMENT (2)	1396.
CONSTRUCTED FACILITIES	88511.
PRE-INVEST AND START-UP EXP	5171.
INTEREST DURING CONSTRUCTION	11822.
TOTAL FIXED CAPITAL	107468.
INITIAL WORKING CAPITAL	10947.
TOTAL CAPITAL COST	118415.

SOURCE OF FUNDS

PAID-UP SHARE CAPITAL	21979.
LONG TERM DEBT	87918.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	109897.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON SHARE CAPITAL
 - IRR ON EQUITY - (US\$ 1000)

YEAR	SHARE CAPITAL (OUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-T DEBT REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH	
									OUT-FLOW	IN-FLOW
1983	300.	0.	0.	0.	0.	0.	0.	0.0	0.	0.
1984	3934.	0.	0.	0.	0.	0.	0.	0.0	0.	0.
1985	5438.	0.	0.	0.	0.	0.	0.	0.0	0.	0.
1986	8301.	0.	0.	0.	0.	0.	0.	0.0	0.	0.
1987	0.	-13679.	0.	-13679.	7257.	0.	-6421.	0.0	0.	0.
1988	0.	-5851.	0.	-5851.	7257.	0.	1407.	0.0	0.	0.
1989	0.	-3842.	0.	-3842.	7257.	0.	3415.	0.0	0.	0.
1990	0.	-3260.	0.	-3260.	7257.	8792.	-4794.	0.0	0.	0.
1991	0.	-2019.	0.	-2019.	7257.	8792.	-3354.	0.0	0.	0.
1992	0.	-2048.	0.	-2048.	7257.	8792.	-3583.	0.0	0.	0.
1993	0.	-1583.	0.	-1583.	7257.	8792.	-3117.	0.0	0.	0.
1994	0.	-1052.	0.	-1052.	7257.	8792.	-2587.	0.0	0.	0.
1995	0.	-743.	0.	-743.	7257.	8792.	-2177.	0.0	0.	0.
1996	0.	20.	0.	20.	7257.	8792.	-1515.	0.0	0.	0.
1997	0.	1578.	356.	1640.	5558.	8792.	-1594.	0.0	0.	0.
1998	0.	2767.	470.	2296.	5558.	8792.	-937.	0.0	0.	0.
1999	0.	3621.	616.	3006.	5558.	8792.	-228.	0.0	0.	0.
2000	0.	4577.	778.	3799.	5558.	0.	9357.	0.0	0.	0.
2001	-7104.	5505.	1005.	4905.	5558.	0.	10463.	0.0	0.	0.
TOTAL	14875.						-5805.		0.	0.
**** INTERNAL RATE OF RETURN ****				0.0						

SUM OF THE COST IS LARGER THAN THE ACCUMULATED RETURN, SO THAT IRR WILL BE GOT IN NEGATIVE QUANTITY
 ***** PAY-OUT PERIOD(YEARS) ***** THE SHARE CAPITAL CAN NOT BE PAID OUT WITHIN THE PROJECT LIFE (AFTER TAX BASE)

CAPITAL REQUIREMENTS

LAND AND SITE IMPROVEMENT	1964.
MACHINERY AND EQUIPMENT	67092.
CIVIL AND BUILDING	7944.
LCG HANDLING EQUIPMENT (1)	3561.
LCG HANDLING EQUIPMENT (2)	3561.
LCG HANDLING EQUIPMENT (3)	3561.
TRANSPORTATION EQUIPMENT (1)	1396.
TRANSPORTATION EQUIPMENT (2)	1396.
CONSTRUCTED FACILITIES	88511.
PRE-INVEST AND START-UP EXP	5171.
INTEREST DURING CONSTRUCTION	11822.
TOTAL FIXED CAPITAL	107468.
INITIAL WORKING CAPITAL	10947.
TOTAL CAPITAL COST	118415.

SOURCE OF FUNDS

PAY-UP SHARE CAPITAL	21979.
LONG TERM DEBT	87918.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	109897.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - CASE (B) - CORRUGATING MEDIUM - (US 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	RETURN BEFORE TAX	(BEFORE TAX)		(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
						PRESENT VALUE	INVEST-				PRESENT VALUE	RETURN
1983	1346.	0.	0.	0.	0.	1.0000	1346.	0.	0.	1.0000	1346.	0.
1984	14231.	0.	0.	0.	0.	0.9910	14103.	0.	0.	0.9910	14103.	0.
1985	3815E.	0.	0.	0.	0.	0.9820	37472.	0.	0.	0.9820	37472.	0.
1986	26293.	0.	0.	0.	0.	0.9732	25587.	0.	0.	0.9732	25587.	0.
1987	17319.	0.	175.	0.	175.	0.9644	16702.	168.	175.	0.9644	16702.	168.
1988	0.	-14644.	7285.	10111.	2752.	0.9557	2630.	2630.	2752.	0.9557	2630.	2630.
1989	0.	-5633.	7285.	10111.	7763.	0.9470	7351.	7351.	7763.	0.9470	7351.	7351.
1990	0.	-7313.	7285.	10111.	10083.	0.9385	9462.	9462.	10083.	0.9385	9462.	9462.
1991	0.	-5723.	7285.	10111.	11673.	0.9300	10856.	10856.	11673.	0.9300	10856.	10856.
1992	3561.	-5248.	7285.	5059.	11137.	0.9216	10264.	10264.	11137.	0.9216	10264.	10264.
1993	0.	-5738.	7285.	8088.	9636.	0.9133	8800.	8800.	9636.	0.9133	8800.	8800.
1994	0.	-5797.	7285.	7077.	8566.	0.9050	7752.	7752.	8566.	0.9050	7752.	7752.
1995	1396.	-5650.	7111.	6066.	7487.	0.8969	6715.	6715.	7487.	0.8969	6715.	6715.
1996	0.	-5788.	6936.	5055.	6204.	0.8888	5514.	5514.	6204.	0.8888	5514.	5514.
1997	3561.	-5963.	6936.	4044.	5078.	0.8807	4472.	4472.	5078.	0.8807	4472.	4472.
1998	0.	-4190.	4594.	3033.	3437.	0.8726	3000.	3000.	3437.	0.8726	3000.	3000.
1999	0.	-4409.	4594.	2022.	2207.	0.8649	1909.	1909.	2207.	0.8649	1909.	1909.
2000	0.	-4659.	4594.	1011.	946.	0.8571	811.	811.	946.	0.8571	811.	811.
2001	0.	-4943.	4594.	0.	-350.	0.8493	-297.	-297.	-350.	0.8493	-297.	-297.
2002	-28285.	-4992.	4594.	0.	-399.	0.8417	-23806.	-335.	-399.	0.8417	-23806.	-335.
TOTAL	77580.				86395.		79073.		86395.		79073.	79073.

***** INTERNAL RATE OF RETURN ***** 0.91 PER CENT (BEFORE TAX) 0.91 PER CENT (AFTER TAX)
 ***** PAY-OUT PERIOD (YEARS) ***** THE INVESTMENT CAN NOT BE PAID OUT WITHIN THE PROJECT LIFE (AFTER TAX BASE)
 ***** PAY-OUT PERIOD (YEARS) ***** THE INVESTMENT CAN NOT BE PAID OUT WITHIN THE PROJECT LIFE (BEFORE TAX BASE)

CAPITAL REQUIREMENTS

LAND AND SITE IMPROVEMENT	11990.
MACHINERY AND EQUIPMENT	54000.
CIVIL AND BUILDING	11265.
LOG HANDLING EQUIPMENT (1)	3561.
LOG HANDLING EQUIPMENT (2)	3561.
LOG HANDLING EQUIPMENT (3)	3561.
TRANSPORTATION EQUIPMENT (1)	1396.
TRANSPORTATION EQUIPMENT (2)	78740.
CONSTRUCTED FACILITIES	5881.
PRE-INVEST AND START-UP EXP	17545.
INTEREST DURING CONSTRUCTION	114156.
TOTAL FIXED CAPITAL	9254.
INITIAL WORKING CAPITAL	123410.
TOTAL CAPITAL COST	

SOURCE OF FUNDS

PAID-UP SHARE CAPITAL	22978.
LONG TERM DEBT	91914.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	114892.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - CASE (D) : PRINTING & WRITING PAPER - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	RETURN BEFORE TAX	DISCOUNT FACTOR	(BEFORE TAX)		(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
							PRESENT VALUE	INVEST.				PRESENT VALUE	INVEST.
1983	1467	0	0	0	0	0.0	0	0	0	0.0	0	0	0
1984	15919	0	0	0	0	0.0	0	0	0	0.0	0	0	0
1985	41746	0	0	0	0	0.0	0	0	0	0.0	0	0	0
1986	28317	0	0	0	0	0.0	0	0	0	0.0	0	0	0
1987	13359	0	175	0	175	0.0	0	0	175	0.0	0	0	0
1988	0	-17011	7988	11112	2089	0.0	0	0	2089	0.0	0	0	0
1989	0	-10957	7588	11112	8142	0.0	0	0	8142	0.0	0	0	0
1990	0	-8397	7988	11112	10703	0.0	0	0	10703	0.0	0	0	0
1991	0	-6945	7988	11112	12155	0.0	0	0	12155	0.0	0	0	0
1992	3561	-6451	7988	10000	11537	0.0	0	0	11537	0.0	0	0	0
1993	0	-7039	7588	8889	9839	0.0	0	0	9839	0.0	0	0	0
1994	0	-7209	7988	7778	8558	0.0	0	0	8558	0.0	0	0	0
1995	1396	-7228	7814	6667	7252	0.0	0	0	7252	0.0	0	0	0
1996	0	-7470	7639	5556	5725	0.0	0	0	5725	0.0	0	0	0
1997	3561	-7750	7639	4445	4334	0.0	0	0	4334	0.0	0	0	0
1998	0	-6008	5081	3333	2406	0.0	0	0	2406	0.0	0	0	0
1999	0	-6442	5081	2222	862	0.0	0	0	862	0.0	0	0	0
2000	0	-7498	5081	1111	-743	0.0	0	0	-743	0.0	0	0	0
2001	0	-7498	5081	0	-2417	0.0	0	0	-2417	0.0	0	0	0
2002	-30156	-7836	5081	0	-2755	0.0	0	0	-2755	0.0	0	0	0
TOTAL	79170				77862		0		77862			0	

***** INTERNAL RATE OF RETURN ***** 0.0 PER CENT (BEFORE TAX) 0.0 PER CENT (AFTER TAX)

SUM OF THE COST IS LARGER THAN THE ACCUMULATED RETURN, SO THAT IRR WILL BE GOT IN NEGATIVE QUANTITY (BEFORE TAX)

SUM OF THE COST IS LARGER THAN THE ACCUMULATED RETURN, SO THAT IRR WILL BE GOT IN NEGATIVE QUANTITY (AFTER TAX)

***** PAY-OUT PERIOD (YEARS) ***** THE INVESTMENT CAN NOT BE PAID OUT WITHIN THE PROJECT LIFE (AFTER TAX BASE)
 ***** PAY-OUT PERIOD (YEARS) ***** THE INVESTMENT CAN NOT BE PAID OUT WITHIN THE PROJECT LIFE (BEFORE TAX BASE)

CAPITAL REQUIREMENTS

LAND AND SITE IMPROVEMENT	12228
MACHINERY AND EQUIPMENT	61165
CIVIL AND BUILDING	11648
LOG HANDLING EQUIPMENT (1)	3561
LOG HANDLING EQUIPMENT (2)	3561
LOG HANDLING EQUIPMENT (3)	3561
TRANSPORTATION EQUIPMENT (1)	1396
TRANSPORTATION EQUIPMENT (2)	1396
CONSTRUCTED FACILITIES	86292
PRE-INVEST AND START-UP EXP	6314
INTEREST DURING CONSTRUCTION	19265
TOTAL FIXED CAPITAL	124099
INITIAL WORKING CAPITAL	10688
TOTAL CAPITAL COST	134787

SOURCE OF FUNDS

PAID-UP SHARE CAPITAL	25254
LONG TERM DEBT	101015
SHORT TERM DEBT	0
FINANCIAL RESOURCES	126269

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 - SELLING PRICE 10% DOWN - (US\$ 1000)

YEAR	(1) AFT TAX PROFIT -TD- SALES REV (PCT)	(2) AFT TAX PROFIT -TD- S/M EQUITY (PCT)	(3) BFR TAX PROFIT -TD- INVESTMT (PCT)	(4) AFT TAX PROFIT -TC- S/CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TC- S/H EQUITY	(9)* PROFIT B-E-P. CAPACITY UTILIZE (PCT)	(10)* CASH B-E-P. SALES PRICE (PRICE)	(11)* CASH B-E-P. CAPACITY UTILIZE (PCT)
1987	-76.6	-191.8	-13.1	-65.7	3.23	0.91	0.26	92.7	129.4	941.4	97.4
1988	-24.1	-994.1	-6.2	-31.1	2.48	0.82	1.04	99.7	125.0	654.3	92.9
1989	-17.1	115.4	-4.7	-23.5	0.76	0.26	1.22	106.7	122.7	611.8	90.6
1990	-14.1	48.9	-3.9	-19.4	0.48	0.16	0.69	114.7	118.8	782.2	125.5
1991	-11.5	28.5	-3.1	-15.8	0.30	0.10	0.71	125.7	115.3	765.0	122.0
1992	-12.5	23.7	-3.3	-17.3	0.25	0.08	0.68	144.7	116.7	771.7	123.4
1993	-11.8	18.2	-3.1	-16.2	0.21	0.07	0.67	180.7	115.7	766.9	122.4
1994	-10.9	14.5	-2.9	-15.1	0.18	0.06	0.67	287.7	114.6	761.4	121.3
1995	-10.7	12.4	-2.8	-14.8	0.16	0.05	0.65	****/****	114.3	760.0	121.0
1996	-9.7	10.1	-2.5	-13.4	0.14	0.05	0.65	****/253	113.0	753.5	119.7
1997	-4.9	4.8	-1.2	-6.7	0.12	0.04	0.60	-40.7/140	106.5	773.0	123.7
1998	-3.8	3.7	-1.0	-5.3	0.12	0.04	0.59	0.7/100	105.1	766.4	122.3
1999	-2.7	2.5	-0.7	-3.7	0.13	0.04	0.59	0.7/100	103.6	758.7	120.8
2000	-1.4	1.3	-0.3	-1.9	0.14	0.05	0.59	0.7/100	101.8	545.0	77.3
2001	0.8	-0.8	0.3	1.2	0.15	0.05	0.59	0.7/100	98.6	529.4	74.1
AVERAGE1	-14.1	-60.2	-3.2	-16.6	0.55	0.19	0.75	85.2	113.4	729.4	110.3
AVERAGE2	-12.4	18.8	-3.2	-16.6	0.20	0.07	0.75	204.7	113.4	729.4	110.3

(AVERAGE1) : SUM CF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TWO OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 - SELLING PRICE 10\$ UP -
 (US\$ 1000)

YEAR	(1) AFT TAX PROFIT -10- SALES REV S/H EQUITY (PCT)	(2) AFT TAX PROFIT -10- (PCT)	(3) BFR TAX PROFIT -10- (PCT)	(4) AFT TAX PROFIT -10- S/CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -10- S/H EQUITY	(9)* PROFIT B.E.P. CAPACITY UTILIZE (PCT)	(10)* CASH B.E.P. SALES PRICE (PRICE)	(11)* CASH B.E.P. CAPACITY UTILIZE (PCT)
1987	-44.5	-87.5	-9.3	-46.7	22.48	11.80	0.69	98. / 12.	99.9	941.4	75.1
1988	-1.0	-3.1	-0.3	-1.6	28.36	19.59	1.72	89. / 11.	95.7	649.9	71.0
1989	5.1	14.2	1.7	8.6	2.64	2.11	1.95	86. / 14.	93.5	604.6	68.8
1990	6.8	16.0	2.3	11.5	2.74	2.22	1.05	82. / 18.	91.4	780.7	96.6
1991	11.2	20.7	3.6	18.8	2.58	2.05	1.15	76. / 24.	86.0	745.9	91.1
1992	13.8	21.0	4.5	23.2	2.74	2.25	1.22	69. / 31.	82.7	724.9	87.8
1993	16.4	20.6	5.3	27.6	3.07	2.59	1.29	60. / 40.	79.4	703.9	84.5
1994	19.0	19.9	6.1	32.0	3.31	2.84	1.38	50. / 50.	76.1	683.0	81.3
1995	21.6	19.0	6.9	36.4	3.78	3.31	1.48	38. / 62.	72.8	662.0	78.0
1996	24.2	18.0	7.5	40.8	3.92	3.46	1.59	26. / 74.	69.5	641.0	74.7
1997	26.1	16.9	5.7	44.0	3.64	3.28	1.55	13. / 87.	60.4	634.4	73.6
1998	28.3	16.0	10.5	47.6	3.93	3.58	1.67	-0. / 100.	57.1	613.4	70.4
1999	30.5	15.2	11.3	51.3	11.23	10.30	1.82	-0. / 100.	53.8	592.5	67.1
2000	32.6	14.4	12.1	54.9	13.23	12.36	*****	-0. / 100.	50.5	366.5	31.6
2001	32.6	13.0	12.1	54.9	15.85	14.98	*****	-0. / 100.	50.5	366.5	31.6
AVERAGE1	14.8	9.0	5.6	26.9	8.23	6.45	*****	45. / 50.	74.6	647.4	72.2
AVERAGE2	16.5	14.1	5.8	26.9	4.82	4.24	1.60	48. / 52.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TWO OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 - INVESTMENT COST 10% DOWN -
 (US\$ 1000)

YEAR	(1) AFT TAX PROFIT -TO- SALES REV S/H EQUITY (PCT)	(2) AFT TAX PROFIT -TO- S/H EQUITY (PCT)	(3) DFR TAX PROFIT -TO- INVESTMENT (PCT)	(4) AFT TAX PROFIT -TO- CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TO- S/H EQUITY	(9)* PROFIT B-E-P. CAPACITY UTILIZE (PCT)	(10)* CASH B-E-P. SALES PRICE (PRICE)	(11)* CASH B-E-P. CAPACITY UTILIZE (PCT)
1987	-54.7	-113.6	-11.6	-53.2	35.20	28.13	0.48	90./ 10.	109.3	935.1	84.1
1988	-8.3	-34.7	-2.6	-12.1	33.67	25.33	1.42	92./ 8.	104.6	645.7	79.5
1989	-1.7	-8.2	-0.6	-2.6	2.65	2.14	1.63	92./ 8.	102.1	600.7	77.0
1990	0.2	1.0	0.1	0.3	2.43	1.92	0.89	91./ 9.	99.7	773.2	107.7
1991	4.9	19.1	1.6	7.7	1.98	1.47	0.98	87./ 13.	93.6	738.8	101.6
1992	7.7	23.1	2.5	12.1	2.04	1.53	1.04	82./ 18.	90.0	718.2	98.0
1993	10.6	24.0	3.5	16.5	2.20	1.69	1.10	74./ 26.	86.4	697.6	94.3
1994	13.4	23.3	4.3	20.9	2.30	1.79	1.17	64./ 36.	82.7	677.0	90.7
1995	16.2	22.8	5.2	25.3	2.45	1.98	1.25	52./ 48.	79.1	656.5	87.1
1996	19.0	21.8	5.9	29.7	2.35	1.93	1.35	37./ 63.	75.4	635.9	83.4
1997	21.9	21.0	8.2	34.2	2.32	1.94	1.33	20./ 80.	65.9	631.4	82.6
1998	24.3	19.7	9.1	37.9	2.50	2.13	1.43	-0./100.	62.2	610.8	79.0
1999	26.6	16.5	10.0	41.5	8.07	7.01	1.56	-0./100.	58.6	590.2	75.3
2000	29.0	17.4	10.9	45.2	10.24	9.25	*****	-0./100.	54.9	366.5	35.7
2001	29.0	15.3	10.9	45.2	12.91	11.92	*****	-0./100.	54.9	366.5	35.7
AVERAGE1	9.2	4.7	3.8	16.6	8.42	6.68	*****	52./ 4d.	81.3	642.9	80.8
AVERAGE2	10.9	14.0	4.0	16.6	3.58	2.98	1.35	59./ 41.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TWO OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 -- INVESTMENT COST 10% UP -- (US\$ 1000)

YEAR	(1) AFT TAX PROFIT -10- SALES REV {PCT}	(2) AFT TAX PROFIT -10- S/H EQUITY {PCT}	(3) RFR TAX PROFIT -10- INVESTMENT {PCT}	(4) AFT TAX PROFIT -10- S/CAPITAL {PCT}	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -10- S/H EQUITY	(9)* PROFIT B.E.P. CAPACITY UTILIZE {PCT}	(10)* CASH B.E.P. SALES PRICE {PRICE}	(11)* CASH B.E.P. CAPACITY UTILIZE {PCT}
1987	-71.5	-131.5	-12.4	-56.8	43.92	32.64	0.40	90.7 / 10.	122.9	1008.5	92.2
1988	-19.5	-117.4	-5.1	-23.3	33.76	24.55	1.16	95.7 / 5.	118.3	694.5	87.6
1989	-12.3	-372.7	-3.4	-15.7	2.01	1.55	1.33	99.7 / 1.	115.8	646.5	85.1
1990	-10.4	146.4	-2.9	-13.3	1.47	1.00	0.73	103.7 / -3.	113.4	860.5	123.2
1991	-5.0	41.6	-1.4	-6.4	0.65	0.24	0.80	106.7 / -6.	106.5	821.5	116.3
1992	-1.8	12.8	-0.5	-2.3	0.54	0.19	0.84	108.7 / -8.	102.3	797.7	112.1
1993	0.4	-2.6	0.1	0.4	0.46	0.16	0.87	109.7 / -9.	99.5	782.1	109.3
1994	2.6	-25.8	0.7	3.6	0.35	0.14	0.91	105.7 / -9.	96.4	764.3	106.2
1995	4.6	-80.8	1.3	6.2	0.37	0.13	0.94	107.7 / -7.	93.8	745.5	103.5
1996	7.9	412.0	2.0	10.1	0.31	0.11	1.01	97.7 / 3.	89.8	727.1	99.6
1997	12.5	86.7	3.9	16.0	0.31	0.11	1.06	98.7 / 32.	80.5	735.1	101.0
1998	15.6	51.9	4.8	19.5	0.32	0.11	1.16	-0.7/100.	75.7	708.0	96.2
1999	18.8	36.5	5.8	24.0	0.62	0.22	1.16	-0.7/100.	70.7	679.7	91.2
2000	22.4	31.4	6.9	26.6	5.14	2.71	*****	-0.7/100.	65.1	399.8	41.6
2001	26.2	28.6	8.1	33.5	6.03	4.84	*****	-0.7/100.	59.2	366.5	35.7
AVERAGE1	-0.6	8.0	0.5	1.6	0.42	4.58	*****	73.7 / 27.	94.0	716.1	93.4
AVERAGE2	1.3	7.8	0.7	1.6	0.89	0.52	1.06	85.7 / 11.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE 10% OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 - OPERATING COST 10% DOWN - (US\$ 1000)

YEAR	(1) AFT TAX PROFIT -TO- SALES REV (PCT)	(2) AFT TAX PROFIT -TO- S/H EQUITY (PCT)	(3) BFR TAX PACFIT -TO- INVESTHT (PCT)	(4) AFT TAX PACFIT -TO- S/CAPITAL (PCT)	(5) LURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T CEBT -TC- S/H EQUITY	(9)* PROFIT B.E.P. CAPACITY UTILIZE (PCT)	(10)* CASH B.E.P. SALES PRICE (PRICE)	(11)* CASH B.E.P. CAPACITY UTILIZE (PCT)
1987	-56.9	-118.5	-10.8	-54.2	19.91	8.42	0.52	90./ 10.	109.8	925.8	82.7
1988	-9.1	-35.6	-2.6	-13.0	22.92	13.54	1.46	92./ 8.	105.3	634.7	78.1
1989	-2.3	-12.3	-0.7	-3.6	1.91	1.40	1.67	92./ 8.	102.9	585.6	75.7
1990	-0.4	-2.4	-0.1	-0.7	1.73	1.22	0.91	92./ 8.	100.6	765.7	106.2
1991	4.3	18.8	1.3	6.6	1.28	0.77	1.00	89./ 11.	94.6	730.9	100.2
1992	7.2	23.9	2.1	11.0	1.38	0.87	1.05	84./ 16.	90.9	709.9	96.6
1993	10.1	25.0	3.0	15.4	1.58	1.07	1.12	76./ 24.	87.3	685.0	93.0
1994	12.9	24.4	3.8	19.8	1.71	1.20	1.19	66./ 34.	83.7	668.0	89.4
1995	15.8	23.8	4.6	24.2	1.95	1.48	1.28	54./ 46.	80.1	647.0	85.8
1996	18.7	22.7	5.2	28.6	1.91	1.44	1.38	39./ 61.	76.5	626.0	82.1
1997	22.1	22.2	7.5	33.9	1.95	1.57	1.36	21./ 79.	66.4	619.4	81.0
1998	24.5	20.6	8.3	37.5	2.17	1.80	1.47	-0./100.	52.8	598.5	77.4
1999	26.9	19.2	9.1	41.2	7.33	6.25	1.60	-0./100.	55.2	577.5	73.8
2000	29.3	18.0	9.9	44.8	9.68	8.68	1.60	-0./100.	55.6	351.5	34.8
2001	29.3	15.8	9.9	44.8	12.45	11.49	1.60	-0./100.	55.6	351.5	34.8
AVERAGE1	8.8	4.1	3.4	15.8	5.99	4.08	1.36	53./ 47.	82.1	632.3	79.4
AVERAGE2	10.6	14.2	3.5	15.8	2.89	2.28	1.36	61./ 39.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TWO OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 - OPERATING COST 10% UP - (US\$ 1000)

YEAR	(1) AFT TAX PROFIT -TO- SALES REV S/H EQUITY (PCT)	(2) AFT TAX PROFIT -TO- SALES REV S/H EQUITY (PCT)	(3) BFR TAX PROFIT -TO- INVESTMENT S/CAPITAL (PCT)	(4) AFT TAX PROFIT -TO- CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TO- S/H EQUITY	(9)* PROFIT B.E.P. CAPACITY UTILIZE (PCT)	(10)* CASH B.E.P. SALES PRICE (PRICE)	(11)* CASH B.E.P. CAPACITY UTILIZE (PCT)
1987	-61.0	-138.9	-11.6	-58.1	14.38	4.39	0.43	91./ 9.	115.8	957.0	87.2
1988	-13.2	-82.2	-3.8	-18.9	15.35	7.08	1.32	95./ 5.	111.0	665.1	82.4
1989	-6.4	-75.1	-2.0	-9.9	1.53	0.98	1.53	96./ 4.	108.5	619.7	79.8
1990	-4.6	-113.3	-1.4	-7.0	1.20	0.66	0.83	98./ 2.	106.0	795.7	112.0
1991	0.2	5.1	0.1	0.3	0.68	0.24	0.92	98./ 2.	99.7	760.9	105.7
1992	2.2	34.0	0.6	3.3	0.64	0.23	0.95	96./ 4.	97.1	746.5	103.1
1993	4.7	42.4	1.4	7.2	0.64	0.23	1.00	92./ 8.	93.7	727.9	99.7
1994	7.6	40.7	2.2	11.7	0.61	0.22	1.07	85./ 15.	89.9	706.7	95.8
1995	10.3	35.4	3.0	15.7	0.72	0.26	1.14	73./ 27.	86.4	687.5	92.4
1996	14.0	32.4	3.9	21.4	0.66	0.24	1.25	55./ 45.	81.5	660.6	87.5
1997	17.9	29.4	6.0	27.4	0.89	0.41	1.24	36./ 70.	71.4	657.0	86.8
1998	21.1	27.3	7.1	32.3	1.05	0.58	1.36	-0./100.	66.2	628.4	81.6
1999	23.5	24.6	8.0	36.0	4.20	2.92	1.48	-0./100.	62.4	607.4	77.8
2000	25.5	22.3	8.8	39.6	6.80	5.62	*****	-0./100.	58.6	381.4	36.7
2001	25.9	19.0	8.8	39.6	9.64	8.46	*****	-0./100.	58.6	381.4	36.7
AVERAGE1	4.5	-6.5	2.1	9.4	3.94	2.17	*****	61./ 39.	87.1	665.6	84.3
AVERAGE2	6.3	14.1	2.2	9.4	1.56	0.97	1.26	72./ 28.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TMC OR MCRE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 - INTEREST : 5% - (US\$ 1000)

YEAR	(1) AFT TAX PROFIT -TO- SALES REV (PCT)	(2) AFT TAX PROFIT -TO- S/H EQUITY (PCT)	(3) BEF TAX PROFIT -TO- INVESTMENT (PCT)	(4) AFT TAX PROFIT -TO- S/CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TO- S/H EQUITY	(9)* PROFIT B-E-P. CAPACITY UTILIZE (PCT)	(10)* CASH B-E-P. SALES PRICE (PRICE)	(11)* CASH B-E-P. CAPACITY UTILIZE (PCT)
1987	-29.6	-42.8	-6.0	-30.0	31.59	20.99	1.10	85. / 15.	89.1	748.8	63.6
1988	8.4	15.5	2.6	12.9	38.94	30.23	3.25	83. / 17.	84.4	521.9	58.9
1989	14.0	22.2	4.5	22.7	3.42	2.90	3.74	78. / 22.	81.9	484.4	56.4
1990	15.9	20.8	5.2	25.8	3.69	3.18	1.30	72. / 28.	79.5	649.6	85.8
1991	19.0	20.5	5.5	30.9	3.61	3.11	1.39	65. / 35.	75.5	626.8	81.8
1992	20.2	18.4	6.3	32.9	4.01	3.52	1.44	57. / 43.	73.9	617.8	80.2
1993	21.4	16.8	6.7	34.9	4.45	3.95	1.50	49. / 51.	72.3	608.8	78.6
1994	22.7	15.4	7.0	36.9	4.74	4.26	1.56	40. / 60.	70.7	599.8	77.0
1995	23.9	14.3	7.4	38.9	5.24	4.75	1.62	31. / 69.	69.1	590.9	75.4
1996	25.1	13.3	7.5	40.9	5.35	4.87	1.69	21. / 79.	67.5	581.9	73.9
1997	24.5	11.8	8.8	39.9	4.86	4.47	1.58	11. / 89.	61.8	585.0	74.4
1998	25.6	11.2	5.1	41.5	5.13	4.74	1.65	-0. / 100.	60.2	576.0	72.8
1999	26.6	10.7	9.5	43.2	15.67	14.55	1.72	-0. / 100.	58.6	567.0	71.2
2000	27.6	10.2	9.9	44.9	18.02	16.94	*****	-0. / 100.	57.1	366.5	35.7
2001	27.6	9.5	9.9	44.9	20.85	19.77	*****	-0. / 100.	57.1	366.5	35.7
AVERAGE1	18.2	11.2	6.3	30.7	11.31	9.48	*****	39. / 61.	70.6	566.1	68.1
AVERAGE2	19.5	12.3	6.4	30.7	6.29	5.68	1.90	41. / 59.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TWO OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL OF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 PROFITABILITY AND FINANCIAL INDICATORS
 INTEREST : 8% (US\$ 1000)

YEAR	(11) AFT TAX PROFIT -TO- SALES REV (PCT)	(12) AFT TAX PROFIT -TO- S/H EQUITY (PCT)	(13) BEF TAX PROFIT -TC- INVESTMENT (PCT)	(14) AFT TAX PROFIT -TO- S/CAPITAL (PCT)	(15) CURRENT RATIO	(16) QUICK RATIO	(17) DEBT SERVICE RATIO	(18) L/T DEBT -TO- S/H EQUITY	(19)* PROFIT B-E-P- CAPACITY UTILIZE (PCT)	(10)* CASH B-E-P- SALES PRICE (PRICE)	(11)* CASH B-E-P- CAPACITY UTILIZE (PCT)
1987	-43.9	-75.8	-6.6	-43.1	24.44	13.80	0.67	88./ 12.	100.6	842.4	73.9
1988	-1.1	-2.9	-0.3	-1.6	29.13	20.39	1.97	88./ 12.	95.9	584.1	69.3
1989	5.0	12.5	1.6	7.9	2.76	2.16	2.27	85./ 15.	93.4	542.9	66.7
1990	6.9	14.7	2.2	10.9	2.78	2.24	1.05	81./ 19.	91.1	713.5	97.2
1991	10.8	18.7	3.3	17.1	2.55	2.01	1.14	75./ 25.	86.0	684.8	92.1
1992	12.9	18.7	3.9	20.3	2.66	2.16	1.20	69./ 31.	83.4	670.0	89.5
1993	14.9	18.3	4.5	23.5	2.92	2.42	1.26	61./ 39.	80.8	655.2	86.8
1994	16.9	17.7	5.1	26.7	3.06	2.57	1.33	51./ 49.	78.1	640.4	84.2
1995	19.0	16.9	5.7	29.9	3.42	2.93	1.40	40./ 60.	75.5	625.6	81.6
1996	21.0	16.2	6.1	33.1	3.24	2.94	1.49	28./ 72.	72.9	610.8	79.0
1997	22.5	15.3	7.8	35.5	3.24	2.84	1.44	15./ 85.	64.9	609.2	78.7
1998	24.2	14.6	8.4	38.2	3.46	3.07	1.52	-0./ 100.	62.3	594.4	76.1
1999	25.9	13.9	9.0	40.9	11.11	9.97	1.62	-0./ 100.	59.7	579.6	73.4
2000	27.6	13.3	9.6	43.5	13.40	12.32	1.62	-0./ 100.	57.1	366.5	35.7
2001	27.6	12.0	9.6	43.5	16.23	15.14	1.62	-0./ 100.	57.1	366.5	35.7
AVERAGE1	12.7	8.3	4.5	21.7	8.30	6.46	1.57	45./ 55.	77.3	605.7	74.7
AVERAGE2	14.2	12.6	4.7	21.7	4.45	3.83	1.57	50./ 50.			

(AVERAGE1) : SUM OF ANNUAL FIGURES OF PERCENTAGE AND RATIO IS DIVIDED BY NO. OF YEARS(SIMPLE AVERAGE)
 (AVERAGE2) : AVERAGE FIGURES ARE CALCULATED BY ACTUAL VALUES ACCUMULATED OVER THE PROJECT LIFE(WEIGHTED AVERAGE)
 * NOTE FOR (9)(10)(11)
 WHEN THERE ARE TWO OR MORE PRODUCTS, AND DURING THE YEARS WHEN ALL CF PRODUCTS ARE NOT PRODUCED AT THE SAME RATE
 OF CAPACITY UTILIZATION, ABOVE BREAK-EVEN-POINTS CANNOT GIVE CORRECT FIGURES.

Chapter 13.

ECONOMIC ANALYSIS

Chapter 13. ECONOMIC ANALYSIS

13.1 Introduction

This Project comes under the category of pulp and paper manufacture among the principal national projects envisaged for implementation in Ecuador's Five-Year Plan.

If the project were to be carried out by an independent economic unit, that is, by a business entity, the decision on whether or not to proceed with project implementation would depend on the effect that its realization can be expected to bring to the ultimate aim of the enterprise - i.e. maximization of profit. In other words, private profitability judged in the eyes of a business concern, as described in Chapter 12 "Financial Analysis" would constitute the business criterion.

Actually the present Project is not such a private undertaking, but occupies a position among the Ecuadorian national projects, which means that the decision concerning its implementation calls for judgement from broader considerations for its expected effects on the national or overall social objectives. Thus, in this instance, the basic criterion should be public - not private - economic benefit in the interests of the nation or of society in general.

For implementing a project, certain cost items such as taxes, which would be actually paid, and which would thus obviously require being budgeted if it were to be carried out by a private enterprise, would, when considered as a national or public undertaking, not incur any consumption of resources, and should consequently not be counted among the cost items.

Differences should also affect the evaluation of the benefits accruing from implementation of a project: For instance professional training and pleasures for abating pollution, would not be directly effected in the market price of a product from private enterprise, and would consequently not be accorded positive evaluation, but in the case of a national project, such benefits need to given due credit.

It is thus evident that private profit to a corporate business enterprise and public benefit to a nation or to society do not necessarily coincide.

What is more, the aims of a nation or society are not limited to the pursuit of profit,

but include the pursuit of such ideals and targets as are mentioned among the priority items in Ecuador's national policy:

- Improvement of living standard
- Regional development
- Development and effective utilization of manpower
- Effective utilization of natural resources
- Accumulation and enhancement of foreign currency reserves.

These objectives must not be lost from sight in evaluating the effects to be expected upon implementing any national project.

What is called for in this instance is, therefore, to consider the balance between the cost (financial expenditures) to be incurred in implementing the project and the national or social benefits that can be executed from successful realization of the same project.

The foregoing considerations will constitute the underlying principles in the ensuring assessment of the economic effects that can be expected by realizing the present Project, implemented along the lines prescribed for Case "A" (plant for producing corrugating medium constructed by platform-mounted system), which has been evaluated in the preceding Chapter 12 "Financial Analysis" as offering the highest profitability, with I.R.R justifying the investment.

13.2 Economic Benefits

The economic benefits expected from the project will be assessed separately for their direct and indirect aspects.

13.2.1 Direct Benefits

The principal direct benefits to be expected by realizing the present Project would accrue from the economic value of the corrugating medium, sawlog and plywood that would be produced.

Of these products, corrugating medium would substitute imported products, to contribute to valuable savings of the country's foreign payments.

In the present analysis, the extent of such savings in foreign payments realized with the above-mentioned substitution of domestic for imported product, together with the proceeds from sales of sawlog and plywood to serve the domestic market will be accounted for in Section 13.4 further on, as the direct economic benefits accruing from the Project.

13.2.2 Indirect Benefits

The following will be considered as indirect effects accruing from the Project:

(1) Increased employment opportunities

A considerable work force of various trades required in the construction phase will be recruited and employed.

Upon commissioning of the envisaged Plant, a full staff counting about 1,100 men and women will find permanent employment.

(2) Economic effect on the regional community

During construction phase as well as throughout the active life of the Plant, regional commerce engaged in the trade of equipment and construction materials, and in furnishing the Plant with raw materials and in distributing its products will be promoted and activated.

In addition, subsidiary small commerce should enjoy their share of the activated business in the region.

(3) Pervasive effect on allied industries

Upon realization of the project, carton and plywood manufactures in Ecuador will be assured of a stable source and pricing of material required for their work, and this should contribute to stable high operating rate being maintained by these manufacturers.

The Project should further effectively promote the implantation of advanced paper-making technology to possibly constitute a first step toward freedom from dependence on imported products also for other kinds of paper.

Materialization of the Project should bring numerous other indirect benefits as well to Ecuador, but quantitative evaluation of indirect benefits is not only difficult but will risk involving subjective judgements.

In view of this, indirect benefits will be excluded from the present quantitative evaluation, which will thus be limited to estimation of E.I.R.R (Economic Internal Rate of Return).

13.3 Economic Capital Cost

The economic capital cost for the envisaged Project comprises initial cost (required investment cost) and that for production, as detailed below:

13.3.1 Initial Cost (Required Investment Cost)

The project implementation will initially call for availability of funds to cover plant construction, as well as preoperation cost and working capital.

The relevant economic value are calculated in Section 13.4 further on, with account taken of the economic premiums estimated for individual items.

13.3.2 Production Cost

The production costs of corrugating medium, sawlog and plywood are derived from the costs to cover consumption of natural and labor resources as well as other expenditures.

(1) Cost of consuming natural resources

The production will require consumption of wood and fuel oil, in terms of natural resources.

The cost to cover their consumption is calculated with account taken of their respective estimated economic premiums.

(2) Cost of consuming labor resources

The cost of consuming labor resources, is equivalent to the total sum of personnel

expenses of all employees.

The cost is accounted separately for skilled and unskilled labor, with account taken of their respective estimated economic premiums.

(3) Other production costs

Covered under this item are various chemicals and auxiliary materials consumed in production, and also materials for plant repair and maintenance, again calculated with account taken of their respective economic premiums.

13.4 Economic Internal Rate of Return

The economic internal rate of return (E.I.R.R) is calculated from the values derived for the foregoing economic benefits and costs.

13.4.1 Premises

The same premises as adopted in the preceding Chapter 12 covering "Financial Analysis" are adopted also for the present analysis of E.I.R.R, with the exception of to costs and benefits.

In other words, the costs and benefits are analyzed and evaluated for their expected effects on the national or social objectives, and converted into equivalent economic, costs and benefits by applying the respective evaluated economic premiums, to finally derive E.I.R.R.

The economic premiums have been evaluated as follows through consultations with the Ecuadorian Government authorities.

- Foreign exchange	0.50
- Skilled labor	0.00
- Unskilled labor	(-)0.60
- Fuel oil	0.50
- Other domestic materials	0.00

In addition, the economic value of standing timber requires to be evaluated, and

the assessment was requested by the Ecuadorian authorities.

The assessment - as detailed in what follows - led to the conclusion that the value of standing timber should be zero.

– Consideration on the economic value of standing timber

In what follows, an assessment is made of the economic value to be attributed to the resources (standing timber) owned by the Cayapas Forest Concession (that is, the economic value of the Concession).

The economic value of the Concession would be considered equivalent to the aggregate worth of all the different species of trees individually appraised for their utility deriving from their respective properties.

The difficulty of such an approach lies in the wide variety of species constituting the standing timber of the Concession, as described in Chapter 3 “Forest Resources”, which renders it practically impossible to ascribe to each species its optimum use and to assess its value in conformity with its intrinsic properties.

Also, these varieties of species being found growing in a random mixture, commercial operation aimed at making the optimum use of each individual species of wood should not be possible in practice, and thus an economic evaluation based on the foregoing approach - even if it could be done - should be of no practical use.

Such being the circumstances, the economic value of the Concession as a whole is assessed for the economic worth of its standing timber assuming its supply to markets capable of making the optimum quantitative use of the wood, which in this instance are to the envisaged Plant as pulpwood and to sawmills as construction sawlog.

– Price of standing timber as pulpwood

The market price of chips to be adopted for the present calculation will be that prevailing in Japan, which is a market of low coverage by indigenous product, and for this reason constitutes one of the largest markets in the world for pulpwood chips.

Note: The market prices for pulpwood chips prevailing in the neighboring countries of Ecuador, in U.S.A. and in Canada should not be taken as reference for the present calculation, since these countries are largely self-sufficient for this product, and consequently constitute a market where the price is extremely low, and if adopted the calculation, should risk underestimating the timber value.

The market price of chips thus determined are given below, together with other relevant expenses.

-	Market price of chips (C.I.F)	:	US.\$55.58/m ³
-	Charges for importation, inland transportation	:	US.\$4.90/m ³
-	Charges for exportation, ocean freightage, including transportation to port of shipment	:	US.\$37.20/m ³
-	Chipping	:	US.\$9.78/m ³
-	Felling, logging	:	US.\$12.00/m ³

The intrinsic commercial value of standing timber can be determined by subtracting from the market price all expenses and charges incurred for bringing the product to that market for selling as pulp chips:

Intrinsic price of standing timber:

$$55.58 - (4.90 + 37.20 + 9.78 + 12.00) = -8.30 \text{ (US.\$/m}^3\text{)}$$

- Price of standing timber as sawlog, overall assessment of total economic value

About 25% of the total volume of standing timber found in the Concession is considered utilizable as construction sawlog, which would attribute to this portion of timber an economic value that would amount to:

Market price – Felling and logging cost:

$$28.00 - 12.00 = 16.00 \text{ (US.\$/m}^3\text{)}.$$

This positive value possessed by 25% of the standing timber, however, is more than offset by the foregoing negative value of the remaining 75%, so that the net total economic value of the Concession - represented by the aggregate market worth of its standing timber - reduces to zero.

13.4.2 Direct Economic Benefits

The direct economic benefits considered to accrue in this instance upon realization of the envisaged Project are (a) saving of foreign payments through substitution of domestic for imported corrugating medium and (b) proceeds from sales of sawlog and plywood to fill the rising domestic demand.

The direct economic benefit relevant to corrugating medium is derived assuming the product price adopted in the financial analysis of Chapter 12 "Financial Analysis" to be equivalent to the price of the imported corrugating medium and by applying the economic premium.

With respect to sawlog and plywood, their direct economic benefit is derived from their market prices which should remain unaffected by the additional supply, since, as explained in Chapter 12 "Financial Analysis", the products to be supplied upon project realization are envisaged to coincide with the increase in future domestic demand.

The foregoing analysis is summarized in Table 13-1.

Table 13-1. Economic Benefits

(Unit: US.\$1,000)

Item	Premium	Financial Benefit				Economic Benefit			
		Project Year				Project Year			
		1 ('87)	2 ('88)	3 ('89)	Onward	1 ('87)	2 ('88)	3 ('89)	Onward
Corrugating Medium (for import substitute)	0.50	16,182	24,354	25,924	25,978	24,273	36,531	38,886	38,967
Sawlog and plywood	0.00	1,444	2,173	2,313	2,318	1,444	2,173	2,313	2,318
Total	—	17,626	26,527	28,237	28,296	25,717	38,704	41,199	41,285

13.4.3 Economic Capital Cost

– Initial cost (Required investment cost)

The initial cost for realization the Project is derived from the total investment cost, given in Chapter 12 "Financial Analysis" in terms of foreign and local currency, by further dividing the latter portion into expenditures for skilled and unskilled labor and domestically purchased materials, then applying the economic premiums.

The foregoing analysis is summarized in Table 13-2.

Table 13-2. Initial Costs

(Unit: US.\$1,000)

Item	Premium	Financial Capital Cost				Initial Cost			
		Project Year				Project Year			
		-4 ('83)	-3 ('84)	-2 ('85)	-1 ('86)	-4 ('83)	-3 ('84)	-2 ('85)	-1 ('86)
Foreign Currency Cost	0.50	1,311	15,574	34,498	25,967	1,967	23,361	51,747	38,951
Local Currency Cost		5	1,141	5,950	9,933	5	936	4,773	8,695
1. Skilled labor	0.00	-	(514)	(2,500)	(3,105)	-	(514)	(2,500)	(3,105)
2. Unskilled labor	(-)0.60	-	(342)	(1,962)	(2,064)	-	(137)	(785)	(826)
3. Domestic materials	0.00	(5)	(285)	(1,488)	(1,723)	(5)	(285)	(1,488)	(1,723)
4. Initial working capital	0.00	-	-	-	(3,041)	-	-	-	(3,041)
Total		1,316	16,715	40,448	35,900	1,972	24,297	56,520	47,646

– Production cost

As previously mentioned, the economic value of the production cost is derived from the costs to cover consumption of natural and labor resources and other expenditures.

For this calculation, the annual operating costs given in Chapter 12 “Financial Analysis” were modified by subtracting the expenditures on items that do not involve consumption of resources - such as property tax, property and social insurance premiums; the resulting net costs were separated into foreign and local currency portions; the latter portion was further divided into expenditures for skilled and unskilled labor and domestically purchased materials; the result was finally.

The foregoing analysis summarized in Table 13-3.

13.4.4 Calculation of Economic Internal Rate of Return (E.I.R.R)

The foregoing economic benefits and costs are used as basis for calculating E.I.R.R.

Sensitivity analysis also is performed following the same procedure as used in the financial analysis.

The results of the analysis are presented in Fig. 13-1.

Attached to the end of this chapter are:

- | | |
|-----------------------------|-------------------------------|
| – E.I.R.R calculation sheet | – Base case |
| – Ditto | – Selling price lowered 10% |
| – Ditto | – Selling price raised 10% |
| – Ditto | – Investment cost lowered 10% |
| – Ditto | – Investment cost raised 10% |
| – Ditto | – Operating cost lowered 10% |
| – Ditto | – Operating cost raised 10% |

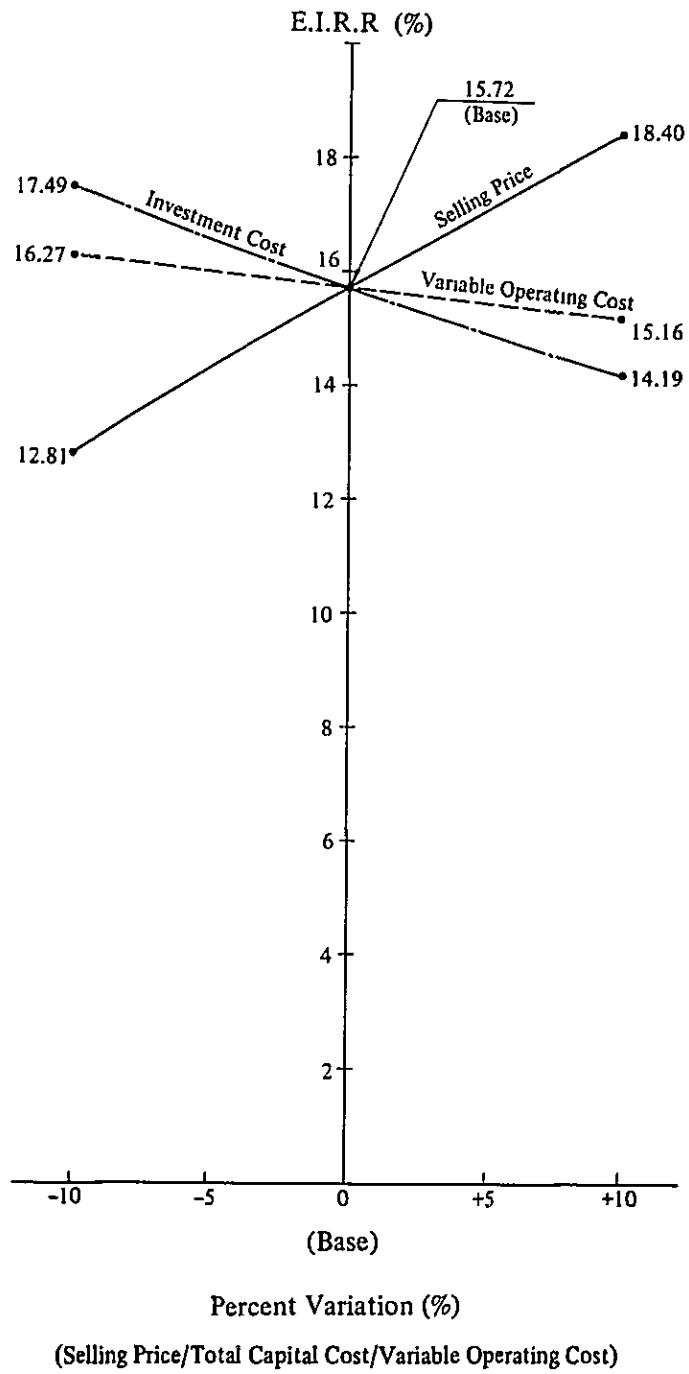
Table 13-3. Production Costs

(Unit: US.\$1,000)

Item	Premium	Financial Operating Cost					Production Cost				
		Project Year					Project Year				
		1 ('87)	2 ('88)	3 ('89)	4 ('90)	Onward	1 ('87)	2 ('88)	3 ('89)	4 ('90)	Onward
Foreign Currency Cost		6,047	6,330	6,086	5,688	5,277	9,071	9,496	9,130	8,553	7,916
1. Chemicals & submaterials	0.50	(2,340)	(3,418)	(3,598)	(3,598)	(3,598)	(3,510)	(5,127)	(5,397)	(5,397)	(5,397)
2. Repair & maintenance	0.50	(1,679)	(1,679)	(1,679)	(1,679)	(1,679)	(2,519)	(2,519)	(2,519)	(2,519)	(2,519)
3. Technical assistance	0.50	(2,208)	(1,233)	(809)	(411)	-	(3,042)	(1,850)	(1,214)	(617)	-
Local Currency Cost		8,004	8,438	8,412	8,280	8,143	7,176	7,848	7,861	7,729	7,592
1. Raw materials	0.00	(487)	(711)	(748)	(748)	(748)	(487)	(711)	(748)	(748)	(748)
2. Fuel	0.50	(1,030)	(1,505)	(1,584)	(1,584)	(1,584)	(1,545)	(2,258)	(2,376)	(2,376)	(2,376)
3. Skilled labor	0.00	(2,795)	(2,795)	(2,795)	(2,795)	(2,795)	(2,795)	(2,795)	(2,795)	(2,795)	(2,795)
4. Unskilled labor	(-)0.60	(2,239)	(2,239)	(2,239)	(2,239)	(2,239)	(896)	(896)	(896)	(896)	(896)
5. Management	0.00	(777)	(777)	(777)	(777)	(777)	(777)	(777)	(777)	(777)	(777)
6. Technical assistance	0.00	(676)	(411)	(269)	(137)	-	(676)	(411)	(269)	(137)	-
Total		14,051	14,768	14,498	13,968	13,420	16,247	17,344	16,991	16,262	15,508

Fig. 13-1. Summary of Sensitivity Analyses

(E.I.R.R % to Variation of Financial Parameters)



13.4.5 Evaluation of the Project Based on E.I.R.R

The base E.I.R.R of 15.72% derived from the foregoing analysis is seen to surpass the 10.62% given in Chapter 12 "Financial Analysis" for I.R.R.O.I.

This is indicative of the vast contribution to the Ecuadorian economy that can be expected from realization of the Project.

Further, the sensitivity analysis further reveals that, even in the event of stagnant product price - as instanced by a lowering of the selling price, the consequently detracted E.I.R.R will still far exceed the above - cited I.R.R.O.I.

The envisaged Project can thus be considered to promise highly positive economic benefit, such as to amply justify its implementation.

13.5 Effect on the Balance of International Payments

An examination is presented in what follows on the effect that can be expected from realization of the Project on Ecuador's balance of international payments.

13.5.1 Foreign Exchange Earnings

Foreign exchange earnings (inflow) forthcoming upon realization of the Project will accrue from:

- Saving of foreign payments through substitution of domestic for imported corrugating medium
- Long-term loan acquired for financing the Project.

13.5.2 Foreign Exchange Outflow

The items expected to incur foreign payments after plant commissioning comprise:

- Initial cost to be paid in foreign currency
- Production cost to be paid in foreign currency
- Payment of interest on long-term loan.

13.5.3 Balance of International Payments

Based on the above-mentioned premises, the balance of international payments following realization of the envisaged Project is analyzed using the values given in Chapter 12 "Financial Analysis", with the results presented in Table 13-4.

The above analysis reveals the aggregate inflow/savings of foreign currency to amount to US.\$462,374,000 through the period of construction and operating life of the Project upon its implementation.

During the same period, the corresponding outflow of the foreign currency will amount to US.\$309,208,000.

The balance of the foregoing amounts gives a net accumulation of US.\$153,139,000. in foreign currency assets, thus promising a considerable contribution to the Ecuadorian economy.

Note: The foregoing analysis is premised upon a long-term interest of 11.0%: If the envisaged Project can be implemented with funds made available at a more advantageous lower interest rate, the amount of foreign currency in flow/savings that can be expected from realization of the Project will far exceed the figure cited above.

Table 13-4. Balance of International Payments

(Unit: US.\$1,000)

Year	Foreign Currency Inflow (1)		Foreign Currency Outflow				Net Foreign Currency Flow	
	Import Substitute	Loan Finance	Initial Cost	Production Cost	Debt Payment	Total (2)	Balance (1) - (2)	Cumulation
-4 (1983)	-	1,057	1,256	-	55	1,311	-254	-254
-3 (1984)	-	13,379	14,763	-	811	15,574	-2,195	-2,449
-2 (1985)	-	32,361	31,346	-	3,152	34,498	-2,137	-4,586
-1 (1986)	-	28,706	19,863	-	6,104	25,967	2,739	-1,847
1 (1987)	16,552	-	-	6,047	8,305	14,352	2,200	353
2 (1988)	24,911	-	-	6,330	8,305	14,635	10,276	10,629
3 (1989)	26,517	-	-	6,086	8,305	14,391	12,126	22,755
4 (1990)	26,572	-	-	5,688	15,858	21,546	5,026	27,781
5 (1991)	26,572	-	3,561	5,277	15,025	23,863	2,709	30,490
6 (1992)	26,572	-	-	5,277	14,195	19,472	7,100	37,590
7 (1993)	26,572	-	-	5,277	13,364	18,641	7,931	45,521
8 (1994)	26,572	-	1,396	5,277	12,533	17,810	8,762	54,283
9 (1995)	26,572	-	-	5,277	11,703	16,980	9,592	63,875
10 (1996)	26,572	-	3,561	5,277	10,872	16,149	10,423	74,298
11 (1997)	26,572	-	-	5,277	10,042	15,319	11,253	85,551
12 (1998)	26,572	-	-	5,277	9,211	14,488	12,084	97,635
13 (1999)	26,572	-	-	5,277	8,381	13,658	12,914	110,549
14 (2000)	26,572	-	-	5,277	-	5,277	21,295	131,844
15 (2001)	26,572	-	-	5,277	-	5,277	21,295	153,139
Total	386,844	75,503	76,286	82,198	156,221	309,208	153,139	-

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT

(ECONOMIC) - CASE (A) : CURRUGATING MEDIUM - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	(BEFORE TAX)			(AFTER TAX)		
					RETURN	DISCOUNT FACTOR	PRESENT VALUE	RETURN	DISCOUNT FACTOR	PRESENT VALUE
1983	1886.	0.	0.	0.	1.0000	1886.	0.	1.0000	1886.	0.
1984	2307.	0.	0.	0.	0.8642	1994.	0.	0.8642	1994.	0.
1985	5179.	0.	0.	0.	0.7468	3880.	0.	0.7468	3880.	0.
1986	3849.	0.	0.	0.	0.6454	2484.	0.	0.6454	2484.	0.
1987	0.	2485.	7895.	0.	0.5577	0.	2789.	0.5577	0.	5789.
1988	0.	14831.	7895.	0.	0.4819	0.	10953.	0.4819	0.	10953.
1989	0.	17765.	7895.	0.	0.4165	0.	10687.	0.4165	0.	10687.
1990	0.	18583.	7895.	0.	0.3599	0.	9530.	0.3599	0.	9530.
1991	5342.	18117.	7895.	0.	0.3110	1661.	8470.	0.3110	1661.	8470.
1992	0.	18269.	8964.	0.	0.2688	0.	7319.	0.2688	0.	7319.
1993	0.	18269.	8964.	0.	0.2323	0.	6325.	0.2323	0.	6325.
1994	2094.	18269.	8964.	0.	0.2007	420.	5466.	0.2007	420.	5466.
1995	5342.	18007.	9226.	0.	0.1735	0.	4724.	0.1735	0.	4724.
1996	0.	19525.	7707.	0.	0.1499	801.	4082.	0.1499	801.	4082.
1997	0.	19525.	7707.	0.	0.1295	0.	3528.	0.1295	0.	3528.
1998	0.	19525.	7707.	0.	0.1119	0.	3048.	0.1119	0.	3048.
1999	0.	19525.	7707.	0.	0.0987	0.	2634.	0.0987	0.	2634.
2000	0.	19525.	7707.	0.	0.0836	0.	2276.	0.0836	0.	2276.
2001	-19856.	19525.	7707.	0.	0.0722	-1434.	1967.	0.0722	-1434.	1967.
TOTAL	108174.					384806.	86799.		384806.	86799.

**** INTERNAL RATE OF RETURN ***** 15.72 PER CENT (BEFORE TAX) 15.72 PER CENT (AFTER TAX)

**** PAY-OUT PERIOD ***** (BEFORE TAX) 6.13 YEAR (AFTER TAX) 6.13 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SOURCE OF FUNDS

LAND AND SITE IMPROVEMENT	1964.	PAID-UP SHARE CAPITAL	26087.
FOREIGN EXCHANGE COST	92679.	LONG TERM DEBT	104348.
CIVIL AND BUILDING	7943.	SHORT TERM DEBT	0.
LOG HANDLING EQUIPMENT (1)	5342.	FINANCIAL RESOURCES	130435.
LOG HANDLING EQUIPMENT (2)	5342.		
TRANSPORTATION EQUIPMENT	2094.		
CONSTRUCTED FACILITIES	114400.		
PRE-INVEST AND START-UP EXP	0.		
INTEREST DURING CONSTRUCTION	15183.		
TOTAL FIXED CAPITAL	130547.		
INITIAL WORKING CAPITAL	12666.		
TOTAL CAPITAL COST	143213.		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - SELLING PRICE 10% DOWN -

(US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	(BEFORE TAX)			(AFTER TAX)		
					RETURN	DISCOUNT FACTOR	PRESENT VALUE	RETURN	DISCOUNT FACTOR	PRESENT VALUE
1983	1886.	0.	0.	0.	1.0000	1886.	0.	1.0000	1886.	0.
1984	23077.	0.	0.	0.	0.8864	20457.	0.	0.8864	20457.	0.
1985	51796.	0.	0.	0.	0.7928	40700.	0.	0.7928	40700.	0.
1986	38492.	0.	0.	0.	0.6965	26811.	0.	0.6965	26811.	0.
1987	0.	-215.	7895.	0.	0.6174	0.	4742.	0.6174	0.	4742.
1988	0.	10768.	7895.	0.	0.5473	10215.	0.	0.5473	10215.	0.
1989	0.	13441.	7895.	0.	0.4852	10352.	0.	0.4852	10352.	0.
1990	0.	14250.	7895.	0.	0.4301	9524.	0.	0.4301	9524.	0.
1991	5342.	15004.	7895.	0.	0.3812	2037.	0.	0.3812	2037.	0.
1992	0.	13935.	8964.	0.	0.3379	0.	7739.	0.3379	0.	7739.
1993	0.	13935.	8964.	0.	0.2996	0.	6860.	0.2996	0.	6860.
1994	2094.	13935.	8964.	0.	0.2655	556.	6081.	0.2655	556.	6081.
1995	0.	14674.	9226.	0.	0.2354	0.	5390.	0.2354	0.	5390.
1996	5342.	13674.	9226.	0.	0.2087	1115.	4778.	0.2087	1115.	4778.
1997	0.	15192.	7707.	0.	0.1850	0.	4235.	0.1850	0.	4235.
1998	0.	15192.	7707.	0.	0.1640	0.	3754.	0.1640	0.	3754.
1999	0.	15192.	7707.	0.	0.1453	0.	3328.	0.1453	0.	3328.
2000	0.	15192.	7707.	0.	0.1288	0.	2950.	0.1288	0.	2950.
2001	-19856.	15192.	7707.	0.	0.1142	-2268.	2615.	0.1142	-2268.	2615.
TOTAL	108174.					321718.			91294.	91294.

***** INTERNAL RATE OF RETURN ***** 12.01 PER CENT (BEFORE TAX) 12.81 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** 7.20 YEAR (BEFORE TAX) 7.20 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SOURCE OF FUNDS

LAND AND SITE IMPROVEMENT	1964.	PAID-UP SHARE CAPITAL	26087.
FOREIGN EXCHANGE COST	92675.	LONG TERM DEBT	104348.
CIVIL AND BUILDING	7943.	SHORT TERM DEBT	0.
LCG HANDLING EQUIPMENT (1)	5342.	FINANCIAL RESOURCES	130435.
LCG HANDLING EQUIPMENT (2)	5342.		
TRANSPORTATION EQUIPMENT	2094.		
CONSTRUCTED FACILITIES	113400.		
PRE-INVEST AND START-UP EXP	0.		
INTEREST DURING CONSTRUCTION	15183.		
TOTAL FIXED CAPITAL	130547.		
INITIAL WORKING CAPITAL	12686.		
TOTAL CAPITAL COST	143213.		

*** PULP AND PAPER MILL PROJECT IN EQUADOR ***
 IRR CALCULATION UN TOTAL INVESTMENT
 - SELLING PRICE 10% UP - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-I DEBT TAX	(BEFORE TAX)			DISCOUNT FACTOR	RETURN INVEST.	PRESENT VALUE	(LESS) INCOME TAX	RETURN AFTER TAX	(AFTER TAX)		
					DEPRECIATION	INTEREST	RETURN						DISCOUNT FACTOR	PRESENT VALUE	INVEST.
1983	1886.	0.	0.	0.	0.	0.	1.0000	1886.	0.	0.	0.	1.0000	1886.	0.	
1984	23077.	0.	0.	0.	0.	0.	0.8446	19490.	0.	0.	0.	0.8446	19490.	0.	
1985	51796.	0.	0.	0.	0.	0.	0.7133	36946.	0.	0.	0.	0.7133	36946.	0.	
1986	38492.	0.	0.	0.	0.	0.	0.6024	23139.	0.	0.	0.	0.6024	23139.	0.	
1987	0.	5184.	7895.	0.	13080.	0.	0.5088	6655.	0.	13080.	0.	0.5088	6655.	0.	
1988	0.	18894.	7895.	0.	26789.	0.	0.4297	11511.	0.	26789.	0.	0.4297	11511.	0.	
1989	0.	22090.	7895.	0.	29985.	0.	0.3629	10882.	0.	29985.	0.	0.3629	10882.	0.	
1990	0.	22917.	7895.	0.	30812.	0.	0.3065	9444.	0.	30812.	0.	0.3065	9444.	0.	
1991	5342.	23671.	7895.	0.	31566.	1343.	0.2589	8171.	0.	31566.	0.	0.2589	1383.	8171.	
1992	0.	22602.	8964.	0.	31566.	0.	0.2186	6901.	0.	31566.	0.	0.2186	0.	6901.	
1993	0.	22602.	8964.	0.	31566.	0.	0.1846	5829.	0.	31566.	0.	0.1846	0.	5829.	
1994	2094.	22602.	8964.	0.	31566.	327.	0.1559	4923.	0.	31566.	0.	0.1559	327.	4923.	
1995	0.	22341.	9226.	0.	31566.	0.	0.1317	4157.	0.	31566.	0.	0.1317	0.	4157.	
1996	5342.	22341.	9226.	0.	31566.	594.	0.1112	3511.	0.	31566.	0.	0.1112	594.	3511.	
1997	0.	23859.	7707.	0.	31566.	0.	0.0939	2986.	0.	31566.	0.	0.0939	0.	2986.	
1998	0.	23859.	7707.	0.	31566.	0.	0.0793	2505.	0.	31566.	0.	0.0793	0.	2505.	
1999	0.	23859.	7707.	0.	31566.	0.	0.0670	2115.	0.	31566.	0.	0.0670	0.	2115.	
2000	0.	23859.	7707.	0.	31566.	0.	0.0566	1786.	0.	31566.	0.	0.0566	0.	1786.	
2001	-19856.	23859.	7707.	0.	31566.	-449.	0.0478	1509.	0.	31566.	0.	0.0478	-449.	1509.	
TOTAL	108174.				447894.			82866.		47894.			82866.	82866.	

**** INTERNAL RATE OF RETURN ***** 18.40 PER CENT (BEFORE TAX) 18.40 PER CENT (AFTER TAX)

**** PAY-OUT PERIOD ***** 5.35 YEAR (BEFORE TAX) 5.35 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SOURCE OF FUNDS

LAND AND SITE IMPROVEMENT	1964.	PAID-UP SHARE CAPITAL	26087.
FOREIGN EXCHANGE COST	92679.	LONG TERM DEBT	104348.
CIVIL AND BUILDING	7943.	SHORT TERM DEBT	0.
LOG HANDLING EQUIPMENT (1)	5342.	FINANCIAL RESOURCES	130435.
LOG HANDLING EQUIPMENT (2)	5342.		
TRANSPORTATION EQUIPMENT	2094.		
CONSTRUCTED FACILITIES	113400.		
PRE-INVEST AND START-UP EXP	0.		
INTEREST DURING CONSTRUCTION	15183.		
TOTAL FIXED CAPITAL	130547.		
INITIAL WORKING CAPITAL	12666.		
TOTAL CAPITAL COST	143213.		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 -- INVESTMENT COST 10% DOWN --
 (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON DEBT	(BEFORE TAX)			RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
					PRESENT VALUE	INVEST.	RETURN			INVEST.	RETURN
1983	1698.	0.	0.	0.	1.0000	1698.	0.	1.0000	1698.	0.	
1984	20770.	0.	0.	0.	0.8512	17678.	0.	0.8512	17678.	0.	
1985	46616.	0.	0.	0.	0.7245	33772.	0.	0.7245	33772.	0.	
1986	34643.	0.	0.	0.	0.6166	21362.	0.	0.6166	21362.	0.	
1987	0.	3276.	7106.	0.	0.5248	0.	5448.	0.	0.	5448.	
1988	0.	15620.	7106.	0.	0.4467	0.	10152.	0.	0.	10152.	
1989	0.	16555.	7106.	0.	0.3802	0.	25661.	0.	0.	9757.	
1990	0.	19373.	7106.	0.	0.3236	0.	8569.	0.	0.	8569.	
1991	4808.	20127.	7106.	0.	0.2755	1324.	7501.	0.	0.	1324.	
1992	0.	15165.	8068.	0.	0.2345	0.	6385.	0.	0.	6385.	
1993	0.	15165.	8068.	0.	0.1996	0.	5434.	0.	0.	5434.	
1994	1865.	15165.	8068.	0.	0.1659	320.	4626.	0.	0.	320.	
1995	0.	18930.	8303.	0.	0.1446	0.	3937.	0.	0.	3937.	
1996	4808.	18930.	8303.	0.	0.1231	0.	3351.	0.	0.	3351.	
1997	0.	20296.	6937.	0.	0.1047	0.	2852.	0.	0.	2852.	
1998	0.	20296.	6937.	0.	0.0891	0.	2428.	0.	0.	2428.	
1999	0.	20296.	6937.	0.	0.0759	0.	2066.	0.	0.	2066.	
2000	0.	20296.	6937.	0.	0.0646	0.	1759.	0.	0.	1759.	
2001	-17870.	20256.	6937.	0.	0.0550	-942.	1497.	0.	0.	-942.	
TOTAL	97357.					75763.	384806.			75763.	

***** INTERNAL RATE OF RETURN ***** 17.49 PER CENT (BEFORE TAX) 17.49 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** 5.60 YEAR (BEFORE TAX) 5.60 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID) OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SOURCE OF FUNDS

LAND AND SITE IMPROVEMENT	1766.	PAID-UP SHARE CAPITAL	23478.
FOREIGN EXCHANGE COST	83411.	LONG TERM DEBT	93913.
CIVIL AND BUILDING	7149.	SHORT TERM DEBT	0.
LOG HANDLING EQUIPMENT (1)	4808.	FINANCIAL RESOURCES	117391.
LOG HANDLING EQUIPMENT (2)	4808.		
TRANSPORTATION EQUIPMENT	1885.		
CONSTRUCTED FACILITIES	102061.		
PRE-INVEST AND START-UP EXP	0.		
INTEREST DURING CONSTRUCTION	13665.		
TOTAL FIXED CAPITAL	117494.		
INITIAL WORKING CAPITAL	11399.		
TOTAL CAPITAL COST	128693.		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - INVESTMENT COST 10% UP - (US\$ 1000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON DEBT	INTEREST RETURN ON DEBT TAX			(BEFORE TAX)			(AFTER TAX)		
					BEFORE TAX	DISCOUNT FACTOR	PRESENT VALUE	INVEST.	RETURN	INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	PRESENT VALUE
1983	2075.	0.	0.	0.	0.	1.0000	2075.	0.	0.	0.	1.0000	2075.	0.
1984	25185.	0.	0.	0.	0.	0.8757	2231.	0.	0.	0.	0.8757	2231.	0.
1985	24975.	0.	0.	0.	0.	0.7669	43696.	0.	0.	0.	0.7669	43696.	0.
1986	42342.	0.	0.	0.	0.	0.6716	28438.	0.	0.	0.	0.6716	28438.	0.
1987	0.	1655.	8635.	0.	10380.	0.5882	0.	6105.	0.	10380.	0.5882	0.	6105.
1988	0.	14041.	8685.	0.	22726.	0.5151	0.	11706.	0.	22726.	0.5151	0.	11706.
1989	0.	16976.	8685.	0.	25661.	0.4511	0.	11575.	0.	25661.	0.4511	0.	11575.
1990	0.	17794.	8685.	0.	26479.	0.3950	0.	10460.	0.	26479.	0.3950	0.	10460.
1991	5876.	18548.	8685.	0.	27233.	0.3460	2033.	9421.	0.	27233.	0.3460	2033.	9421.
1992	0.	17373.	9860.	0.	27233.	0.3030	0.	8251.	0.	27233.	0.3030	0.	8251.
1993	0.	17373.	9860.	0.	27233.	0.2653	0.	7225.	0.	27233.	0.2653	0.	7225.
1994	2303.	17373.	5850.	0.	27233.	0.2324	535.	6328.	0.	27233.	0.2324	535.	6328.
1995	0.	17085.	10148.	0.	27233.	0.2035	0.	5541.	0.	27233.	0.2035	0.	5541.
1996	5876.	17085.	10148.	0.	27233.	0.1782	1047.	4853.	0.	27233.	0.1782	1047.	4853.
1997	0.	18755.	8478.	0.	27233.	0.1561	0.	4250.	0.	27233.	0.1561	0.	4250.
1998	0.	18755.	8478.	0.	27233.	0.1367	0.	3722.	0.	27233.	0.1367	0.	3722.
1999	0.	18755.	8478.	0.	27233.	0.1197	0.	3259.	0.	27233.	0.1197	0.	3259.
2000	0.	18755.	8478.	0.	27233.	0.1048	0.	2854.	0.	27233.	0.1048	0.	2854.
2001	-21842.	18755.	8478.	0.	27233.	0.0918	-2005.	2500.	0.	27233.	0.0918	-2005.	2500.
TOTAL	118990.				394806.		98050.	98050.		394806.		98050.	98050.

***** INTERNAL RATE OF RETURN ***** 14.19 PER CENT (BEFORE TAX) 14.19 PER CENT (AFTER TAX)
 ***** PAY-OUT PERIOD ***** 6.65 YEAR (BEFORE TAX) 6.65 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

	SOURCE OF FUNDS	
LAND AND SITE IMPROVEMENT	2161.	PAID-UP SHARE CAPITAL
FOREIGN EXCHANGE COST	101947.	LONG TERM DEBT
CIVIL AND BUILDING	8737.	SHORT TERM DEBT
LOG HANDLING EQUIPMENT (1)	5876.	FINANCIAL RESOURCES
LOG HANDLING EQUIPMENT (2)	5876.	
TRANSPORTATION EQUIPMENT	2303.	
CONSTRUCTED FACILITIES	124739.	
PRE-INVEST AND START-UP EXP	0.	
INTEREST DURING CONSTRUCTION	16701.	
TOTAL FIXED CAPITAL	143601.	
INITIAL WORKING CAPITAL	13933.	
TOTAL CAPITAL COST	157534.	

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - OPERATING COST 10% DOWN -

(US\$ 1000)

YEAR	PROFIT BEFORE TAX			INTEREST RETURN ON DEBT TAX			(BEFORE TAX) PRESENT VALUE			(AFTER TAX) PRESENT VALUE		
	TOTAL INVESTMENT	TAX	DEPRECIATION	INT. CN	BEFORE TAX	DEBT TAX	DISCOUNT FACTOR	RETURN INVEST.	INVEST.	DISCOUNT FACTOR	RETURN INVEST.	INVEST.
1983	1886	0	0	0	0	0	1.0000	1886	0	1.0000	1886	0
1984	2307	0	0	0	0	0	0.8601	1984	0	0.8601	1984	0
1985	5196	0	0	0	0	0	0.7398	3831	0	0.7398	3831	0
1986	3892	0	0	0	0	0	0.6363	2492	0	0.6363	2492	0
1987	0	3039	7895	0	10934	0	0.5473	5984	0	0.5473	5984	0
1988	0	15640	7895	0	23536	0	0.4707	11076	0	0.4707	11076	0
1989	0	18617	7895	0	26513	0	0.4048	10734	0	0.4048	10734	0
1990	0	19435	7895	0	27331	0	0.3482	9517	0	0.3482	9517	0
1991	5342	20189	7895	0	28085	1600	0.2995	8411	0	0.2995	1600	4411
1992	0	19121	8964	0	28085	0	0.2576	7235	0	0.2576	0	7235
1993	0	19121	8964	0	28085	0	0.2216	6222	0	0.2216	0	6222
1994	2094	15121	8964	0	28085	399	0.1906	5352	0	0.1906	399	5352
1995	0	18859	9226	0	28085	0	0.1639	4603	0	0.1639	0	4603
1996	5342	18859	9226	0	28085	753	0.1410	3959	0	0.1410	753	3959
1997	0	20377	7707	0	28085	0	0.1212	3405	0	0.1212	0	3405
1998	0	20377	7707	0	28085	0	0.1043	2929	0	0.1043	0	2929
1999	0	20377	7707	0	28085	0	0.0897	2519	0	0.0897	0	2519
2000	0	20377	7707	0	28085	0	0.0771	2167	0	0.0771	0	2167
2001	-19856	20377	7707	0	28085	-1318	0.0664	1864	0	0.0664	-1318	1864
TOTAL	108174				397247	85979		85979		397247	85978	85978

**** INTERNAL RATE OF RETURN ***** 16.27 PER CENT (BEFORE TAX) 16.27 PER CENT (AFTER TAX)

**** PAY-OUT PERIOD ***** 5.95 YEAR (BEFORE TAX) 5.95 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SOURCE OF FUNDS

LAND AND SITE IMPROVEMENT	1964	PAID-UP SHARE CAPITAL	26087
FOREIGN EXCHANGE COST	92679	LONG TERM DEBT	104348
CIVIL AND BUILDING	7943	SHORT TERM DEBT	0
LOG HANDLING EQUIPMENT (1)	5342	FINANCIAL RESOURCES	130439
LOG HANDLING EQUIPMENT (2)	5342		
TRANSPORTATION EQUIPMENT	2094		
CONSTRUCTED FACILITIES	113400		
PRE-INVEST AND START-UP EXP	0		
INTEREST DURING CONSTRUCTION	15183		
TOTAL FIXED CAPITAL	130547		
INITIAL WORKING CAPITAL	12666		
TOTAL CAPITAL COST	143213		

*** PULP AND PAPER MILL PROJECT IN ECUADOR ***
 IRR CALCULATION ON TOTAL INVESTMENT
 - OPERATING COST 10% UP - (US\$ 1,000)

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON L-T DEBT	(BEFORE TAX)			(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
					RETURN	PRESENT VALUE	RETURN				PRESENT VALUE	
1983	1886	0	0	0	1886	0	0	0	1.0000	1886	0	
1984	23077	0	0	0	20039	0	0	0	0.8683	17500	0	
1985	51796	0	0	0	39055	0	0	0	0.7540	29055	0	
1986	38492	0	0	0	25203	0	0	0	0.6547	25203	0	
1987	0	1931	7895	0	9826	0	0	9826	0.5685	5587	0	
1988	0	14021	7895	0	21917	0	0	21917	0.4937	10820	0	
1989	0	16913	7895	0	24809	0	0	24809	0.4287	10635	0	
1990	0	17731	7895	0	25627	0	0	25627	0.3722	9539	0	
1991	5342	18485	7895	0	26381	1727	0	26381	0.3232	1727	0	
1992	0	17417	8964	0	26381	7404	0	26381	0.2807	7404	0	
1993	0	17417	8964	0	26381	0	0	26381	0.2437	6430	0	
1994	2094	17417	8964	0	26381	443	0	26381	0.2116	443	0	
1995	0	17155	5226	0	26381	0	0	26381	0.1838	4848	0	
1996	5342	17155	5226	0	26381	852	0	26381	0.1596	852	0	
1997	0	18673	7707	0	26381	0	0	26381	0.1386	3655	0	
1998	0	18673	7707	0	26381	0	0	26381	0.1203	3174	0	
1999	0	18673	7707	0	26381	0	0	26381	0.1045	2756	0	
2000	0	18673	7707	0	26381	0	0	26381	0.0907	2393	0	
2001	-19856	18673	7707	0	26381	-1564	0	26381	0.0788	-1564	0	
TOTAL	108174				372365	87641		372365		87641	87641	

***** INTERNAL RATE OF RETURN ***** 15.16 PER CENT (BEFORE TAX) 15.16 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SOURCE OF FUNDS

LAND AND SITE IMPROVEMENT	1964	PAID-UP SHARE CAPITAL	26087
FOREIGN EXCHANGE COST	92679	LONG TERM DEBT	104348
CIVIL AND BUILDING	7943	SHORT TERM DEBT	0
LOG HANDLING EQUIPMENT (1)	5342	FINANCIAL RESOURCES	130435
LOG HANDLING EQUIPMENT (2)	5342		
TRANSPORTATION EQUIPMENT	2094		
CONSTRUCTED FACILITIES	113400		
PRE-INVEST AND START-UP EXP	0		
INTEREST DURING CONSTRUCTION	15183		
TOTAL FIXED CAPITAL	130547		
INITIAL WORKING CAPITAL	12666		
TOTAL CAPITAL COST	143213		

