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PROJECT COMPLETION REPORT

ROMANIA

**CIMPULUNG-MUSCEL POLYESTER PROJECT
(LOAN NO. 1448-RO)**

January 28, 1985

Industry Department

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ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT (LOAN 1448-RO)

PROJECT COMPLETION REPORT

TABLE OF CONTENTS

	<u>Page No.</u>
PREFACE	i
PROJECT DATA	ii
MISSION DATA	iii
COUNTRY EXCHANGE RATES	iv
PRINCIPAL ABBREVIATIONS AND ACRONYMS	iv
HIGHLIGHTS	v
I. <u>INTRODUCTION</u>	1
II. <u>PROJECT BACKGROUND</u>	1
A. Project Preparation, Appraisal and Loan Approval.....	1
B. Project Description and Objectives.....	2
III. <u>PROJECT IMPLEMENTATION AND MANAGEMENT</u>	3
A. Achievement of Project Objectives.....	3
B. Project Scope Changes.....	3
C. Project Management.....	3
D. Employment and Training.....	4
E. Use and Performance of Engineering Firms and Consultants.....	5
F. Procurement and Performance of Suppliers.....	5
G. Implementation Schedule.....	5
H. Ecology.....	6
I. Capital Cost, Financing and Loan Disbursement.....	6
IV. <u>OPERATING PERFORMANCE</u>	9
A. Production Build-up.....	9
B. Market Development.....	9
V. <u>FINANCIAL PERFORMANCE</u>	10
A. Value of Sales and Production Costs.....	10
B. Financial Analysis.....	10
VI. <u>ECONOMIC PERFORMANCE</u>	10
VII. <u>BANK ROLE AND LESSONS LEARNED</u>	11
A. Bank Role.....	11
B. Lessons Learned.....	12

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TABLE OF CONTENTS (Continued)

ANNEXES

- 3-1 Procurement of Bank-financed Goods and Services by Country of Origin
- 3-2 Construction Schedule
- 3-3 Capital Cost and Financing Required
- 3-4 Annual Capital Expenditures
- 3-5 Estimated and Actual Disbursement Schedules

- 4-1 Estimated and Actual Production
- 4-2 Actual and Estimated Sales Revenues

- 5-1 Estimated and Actual Production, Prices and Unit Costs of Materials and Utilities
- 5-2 Annual Full Capacity Costs
- 5-3 Financial Projections
- 5-4 Cost and Benefit Streams for Financial Rate of Return Calculations

- 6-1 Annual Economic Benefits and Costs
- 6-2 Cost and Benefit Stream for Economic Rate of Return Calculations

ATTACHMENT

Comments received from the Borrower

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT (LOAN 1448-RO)

PROJECT COMPLETION REPORT

PREFACE

Loan 1448-RO for the Cimpulung-Muscel Polyester Project, for US\$50.0 million was signed in June 1977 and was closed in March 1982, the full amount of the Loan having been disbursed.

The main objective of the Loan was to finance the construction of a new polyester plant, introducing new technology and making use of existing plants producing the materials required for the manufacture of polyester. This plant helps to meet domestically the growing demand of the Romanian textile industry.

The Project Completion Report has been prepared by the Industry Department based on a draft prepared by the Borrower and the findings of Industry Department missions to Romania in August 1982 and July 1983.

Comments received from the Borrower, which are included as an attachment, have been incorporated into the text.

This project has not been audited by the Operations Evaluation Department.

ROMANIA - CIMPULUNG MUSCEL POLYESTER PROJECT (LOAN 1448-RO)

PROJECT COMPLETION REPORT

PROJECT DATA
(US\$ million)

	<u>Original</u>	<u>Disbursed</u>	<u>Cancelled</u>	<u>As of 10/31/84</u>	
				<u>Repaid</u>	<u>Outstanding</u>
Loan Amount	\$50.0	\$50.0	-	\$16.7	\$32.3

Cumulative Loan Disbursement

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Planned	10.0	32.5	46.2	50.0	50.0	-
Actual	1.5	23.5	35.2	40.3	46.1	50.0
% Planned	15	72	76	81	93	100

	<u>Original Date</u>	<u>Actual Date</u>
Start of Implementation	-	12/75
Appraisal Date	-	9/76
Board Approval	-	06/07/77
Loan Signing	-	06/15/77
Effectiveness	-	10/03/77
Loan Closing	03/31/81	03/31/82
Date of Physical Completion	01/80	03/31/82 ^{a/}
Completion Time (in months)	49	75
Time Overrun, months	-	26
Date of Start-up of Operations		
Polymerization	01/80	06/81
Line I	01/80	03/82
Line II	01/80	03/82
Line III	01/80	12/82
Fixed Cost ^{b/} (US\$ Million)	121.9	116.1
Cost Underrun (%)	-	5
Total Financing Required (US\$Million)	136.1	137.6
Financial Rate of Return (%)	4.7	6.8
Economic Rate of Return (%)	15.6	14.1

^{a/} The Project comprises a polymerization plant and three spinning lines in addition to the off-sites. The implementation schedule is discussed in para 3.13. The polymerization plant was physically completed by March 1981 and the first spinning line by March 1982. The other two lines were completed in August and December 1982.

^{b/} Excluding working capital and interest during construction.

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT (LOAN 1448-RO)

PROJECT COMPLETION REPORT

MISSION DATA

<u>Missions</u>	<u>Month Year</u>	<u>No. of Days ^{a/}</u>	<u>No. of Persons</u>	<u>Report Date</u>
Identification	4/76	5	3	6/4/76
Preappraisal	7/76	10	3	9/17/76
Appraisal	9/76	10	4	10/27/76
Appraisal Follow-up	11/76	7	2	12/1/76
Supervision I	3/78	4	2	4/24/78
Supervision II	10/78	3	1	12/28/78
Supervision III	11/80	5	1	12/17/80
Supervision IV	9/81	5	1	9/22/81
Supervision V	8/82	5	3	9/27/82
Completion	12/82	5	3	-
Completion	7/83	5	1	-

a/ In most cases, missions were combined with other work in Romania, so the number of days is approximate in regard to the Cimpulung Project.

ROMANIA - CIMPULUNG POLYESTER PROJECT (LOAN 1448-RO)

PROJECT COMPLETION REPORT

COUNTRY EXCHANGE RATES

Appraisal Year	US\$1 = Lei 20
Investment Period	US\$1 = Lei 20-15
Completion Year	US\$1 = Lei 15

PRINCIPAL ABBREVIATIONS AND ACRONYMS

Government	- Government of Romania
the Enterprise	- The Cimpulung-Muscel Polyester Fiber Enterprise
the Central	- The Savinesti Industrial Central under the Ministry of Chemical Industry
IITPIC	- The Technological Engineering and Design Institute for the Chemical Industry
Industrial Ex Im	- Industrialexportimport Foreign Trade Enterprise
IB	- The Investment Bank
MW	- Megawatt
MWh	- Megawatt-hour
tpy	- metric tons per year

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT (LOAN 1448-RO)

PROJECT COMPLETION REPORT

HIGHLIGHTS

The project is part of the overall Romanian strategy for the development of the chemical and petrochemical industry which encourages projects that produce more complex, higher value-added downstream chemicals (para 2.04). The plant's polyester fiber output is intended mainly for the domestic market in the textile and clothing industries, while only small quantities may be exported in the first years of operation. The production of polyester chips is entirely destined to the domestic market. However, a substantial portion of the fiber output is subsequently exported in the form of fabrics, garments and other finished textile products (para 2.05).

The project which is located at Cimpulung Muscel is based on a modern, continuous production process to reduce operating costs and to ensure uniform product quality. The project includes a continuous polyester polymerization plant of an annual capacity of 47,200 tons, a polyester line to produce 15,000 tons per year of chips for filament yarn and three spinning and drawing lines with capacities of approximately 10,500 tons per year for the production of cotton-type polyester staple, wool-type tow and tops and flax-type polyester staple (paras 2.06 and 2.08).

The project was commissioned over an 18-month period starting June 1981 and it was completed with 26 months' delay (para 3.13). The delay was mainly due to delays in (i) delivery of local equipment, in part as a result of the fact that specialized equipment was manufactured locally for the first time based on documentation and specifications supplied by licensor and technology suppliers; and (ii) design and engineering work caused by differences between the systems of standards used by the different suppliers and licensor. Considering the high level of technology transfer achieved, the project implementation is, however, considered reasonable.

Capacity utilization was 40% in 1982 and it is expected to reach 90% in 1983 and full operation in 1984. The project cost amounted to US\$124.8 million, 3.2% below appraisal estimate. Because of revaluation of the Lei during implementation, the cost expressed in Lei is significantly different and is 18.4% lower than the estimate at appraisal. The savings were registered in most cost categories of expenditures: civil works, licenses and engineering, technological tests and are mainly due to favorable price developments and efficient implementation (paras 3.17 and 3.18).

The FRR for the project was calculated at 5.6% as compared to 4.7% estimated at appraisal. The increase in product prices has more than compensated for the higher unit cost of inputs and the delays in project

completion (para 5.03). The ERR was calculated at 14.2% as compared to 15.6% estimated at appraisal. The slightly lower return is due to the completion delay and the current depressed economic price for polyester (para 6.03).

Early supervision proved beneficial in completing all arrangements for the proper engineering and technology acquisition, and in developing adequate procurement procedures. However, a long time was required to negotiate the supply of the main technology package with suppliers to obtain a price consistent with estimated costs, obtain information on technology and to minimize the foreign content of the package. While much of the implementation delay was due to local manufacture of equipment based on a new technology, overall transfer of technology achieved in this project is deemed successful but at the cost of delayed start-up (paras 7.04 and 7.05).

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

I. INTRODUCTION

1.01 The rapid development of chemical industries has been one of the salient features of the long-term policies of the Government of Romania. This policy has been largely designed to increase the value added to the country's petroleum and natural gas resources through the vertical integration of its basic petrochemical industries and the production of finished consumer goods.

1.02 In the pursuance of this policy, the Government has established second-tier petrochemical plants to make intermediate products such as dimethyl terephthalate (DMT) and ethylene glycol (EG), and production of synthetic fibers was started in 1960 to supply the country's expanding textile industry. Consumption of synthetic fibers in Romania increased very rapidly (more than ten fold) between 1965 and 1975 and continued growing through 1982 at an average rate of 8.3% annually.

1.03 The Cimpulung-Muscel Polyester Project (the "Cimpulung Project" or the "Project") is part of the Government's effort described above to integrate the production of the petrochemical and the textile industries. The responsibility for the local manufacture of synthetic fibers is vested in the Savinesti Industrial Central (the "Savinesti Central" or the "Central") under the Ministry of Chemical Industry.

II. PROJECT BACKGROUND

A. Project Preparation, Appraisal and Loan Approval

2.01 Following a request from the Government, a Project Identification Mission visited Romania in April 1976. One of the three projects identified as suitable for Bank financing in the chemical sector was the Cimpulung Project, the scope of which had been determined by the Government in its 1976-80 Five-Year Plan.

2.02 The Project was pre-appraised in July 1976 and appraised in September 1976 on the basis of a draft techno-economic study prepared by the Savinesti Central and the Technological Engineering and Design Institute for Chemical Industry (IITPIC). The main process and engineering features of the Project were discussed with the Bank during appraisal as well as in the early stage of the Project's implementation. Although there was already one polyester plant operating in Romania in 1970, its capacity was insufficient to meet demand and the batch technology used was more

expensive to operate and did not ensure the same degree of product uniformity obtainable by using the modern continuous polymerization process. The appraisal mission had detailed discussions on the Project's estimated capital cost, export possibilities and procurement procedures and, during appraisal, visited the Government agencies dealing with the marketing and utilization of the Project's expected output as well as the enterprises having the capability to manufacture equipment for the Project.

2.03 In March 1977, negotiations between the Romanian authorities and the Bank took place and on June 7, 1977, the Bank's Executive Directors approved a loan of US\$50.0 million to the Investment Bank (IB or the "Borrower") at an interest rate of 8.2% to be on-lent to an enterprise to be formed for the execution and operation of the Project. The Loan's term was for 15 years including three years of grace. IB on-lent proceeds of the Loan to the enterprise at the same 8.2% interest rate as charged by the Bank. The Loan became effective on October 3, 1977.

B. Project Description and Objectives

2.04 As mentioned above, the Cimpulung plant is part of the overall Romanian strategy for the development of the chemical and petrochemical industry, placing decreased emphasis on the production of basic chemicals and encouraging projects that produce more complex, higher value-added "downstream chemicals".

2.05 The plant's polyester fiber output is destined mainly for the domestic market in the textile and clothing industries; only small quantities may be exported during the first years of operation. The production of polyester chips is entirely destined to the domestic market. However, a substantial proportion of the Romanian synthetic fiber output is subsequently exported in the form of fabrics, garments and other finished textile products.

2.06 The Cimpulung Project comprises:

- (a) A 47,200 tpy continuous polyester polymerization plant (originally planned for 46,700 tpy).
- (b) A 15,200 tpy polyester line to produce chips for filament yarn.
- (c) Three spinning and drawing lines with capacities of approximately 10,500 tpy each for the production of cotton-type polyester staple, wool-type tow and tops, and flax-type polyester staple.
- (d) Infrastructure and utilities, including two 4MW steam turbines, boilers with total capacity of 150 tons/hour, water supply system, etc.
- (e) Pollution control and waste recovery installations.
- (f) Laboratory and maintenance equipment.

2.07 The Project is located at Cimpulung Muscel, in the Arges judet, about 50 km north of Pitesti and 160 km northwest of Ploiesti, the two major petrochemical centers in Romania, which supply feedstocks to the Project. The site is connected to the national rail and road network, which facilitates supplying the Project with raw materials and access to markets. The Project is based on a modern, continuous production process, that results in low operating costs and ensures uniform product quality.

2.08 Raw materials required to manufacture polyester are ethylene glycol (EG) and dimethylterephthalate (DMT) or pure terephthalic acid (PTA). The latter is the preferred feedstock at present because of lower costs but at the time the project was designed, there was already one plant in operation and one under construction in the Pitesti and Ploiesti petrochemical complexes, where EG was also being produced. Thus, the choice of technology for this project is considered correct. Utilities required for the plant are ensured as follows: (i) electric power (120,310 MWh/yr) supplied from the captive power plant (72,500 MWh) and the national grid (47,810 MWh); (ii) process steam from its own power plant, using fuel oil as energy source; and (iii) water supplied from the nearby Tirgu river.

III. PROJECT IMPLEMENTATION AND MANAGEMENT

A. Achievement of Project Objectives

3.01 The Project was commissioned over a period of 18 months starting in June 1981. Capacity utilization was 40% in 1982 and, in 1983, it is expected to reach 90%. The IB had repaid 25% of the loan on schedule by June 1983. As shown in para 5.03, starting in 1983, debt service is covered by the Project's cash-flow generation.

B. Project Scope Changes

3.02 There has been no important change in the overall Project scope: only two minor changes in the Project scope have taken place: (i) an increase in capacity from 46,700 tpy to 47,200 tpy attained without change in equipment design, and (ii) a higher use of electric power generated in the Project's power plant. There is also the likelihood that, because of some variations in actual demand, the proportion of final products - cotton, wool and flax-type fiber - will depart from the values assumed at the time of appraisal. The equipment has been designed to ensure product mix flexibility.

C. Project Management

3.03 The Project was implemented under the general management of the Cimpulung-Muscel Polyester Fiber Enterprise (the Enterprise) established in June 1977 within the Savinesti Industrial Central under the Ministry of Chemical Industry. The Central has the general responsibility for chemical fiber production and supply in Romania, at the same time is providing technical assistance to its enterprises. Project implementation followed

normal practice in Romania. The Enterprise served as the overall project coordinator and was thus responsible for Project implementation and completion. However, taking into account the complexity of the Project and the specific works required, several areas of project execution were delegated to other specialized organizations, according to the terms of contracts concluded with them. The main participating agencies are described in the following paragraph.

3.04 IITPIC, the engineering and design institute under the Ministry of Chemical Industry, was responsible for the general design of the Project, technical selection of any foreign technology and equipment, overall site layout of the Project, construction design and detailed engineering (based on the information provided by the main technology/equipment and license supplier). Responsibility for all foreign procurement (including technology, equipment and know-how) originally rested with the Import Agency for Chemical Equipment and Technology (ROMCHIM). This function has now been merged with the responsibility for exporting chemical industry goods and services through a larger agency: the Industrialexportimport Foreign Trade Enterprise (Industrial Ex Im), with IITPIC acting as technical advisor.

3.05 Local procurement was handled by the Enterprise itself. Civil works and construction work were executed by the Pitesti Industrial Construction Trust, a specialized enterprise under the Ministry of Industrial Construction. The works execution has been done under the supervision of and using IITPIC's technical assistance and has been coordinated by the Enterprise. Staff from the companies selected for supplying the licenses and general engineering have participated closely with Romanian counterparts in all aspects of detailed engineering, training, equipment manufacturing, control and erection, and start-up of the Project.

D. Employment and Training

3.06 The Enterprise currently employs 1,861 staff, of which 1,688 are workers (1,652 skilled) and 173 are management personnel, compared to a total of 2,150 estimated during appraisal. Availability of labor was ensured through the Enterprise's training program. Thirty technicians from the Enterprise were given special training abroad by the license suppliers.

3.07 The total work force of the Enterprise is formed as follows:

- (a) 421 constituting the core of staff and skilled labor required were transferred from existing chemical and fiber plants in the Central;
- (b) 724 were trained in other existing factories in Romania;
- (c) 680 were graduates from vocational schools;
- (d) 36 were unskilled labor.

E. Use and Performance of Engineering Firms and Consultants

3.08 As previously mentioned, IITPIC and the Enterprise had overall responsibility for design and supervision of execution of the Project. During Project implementation, staff from licensors and engineering suppliers provided the Enterprise, the general project designer and the construction enterprise with technical assistance. Staff from Mitsubishi, Toray and Chemtex (para. 3.11) should be particularly mentioned, as having provided satisfactory technical assistance for equipment erection, testing and training.

F. Procurement and Performance of Suppliers

3.09 Procurement took place under the general coordination of the Enterprise with the responsibility for technical aspects being assumed by IITPIC. Foreign procurement was done under the responsibility of Industrial Ex Im. Goods and services required for the Project and financed out of the Loan proceeds were procured following the Bank's Procurement Guidelines. Out of the total Loan amount of US\$50 million, contracts amounting to US\$48.2 million were awarded based on international competitive bidding (ICB) and the remaining US\$1.8 million were contracts for small items awarded through limited international shopping, with 3 or 4 foreign companies participating in each tender. In spite of the large number (304) of packages financed out of the Loan proceeds there were no procurement problems pointing to the good cooperation between the Bank, the Borrower, the foreign suppliers and the Enterprise.

3.10 The main package project supplier - Mitsubishi Company (Japan), together with Chemtex (US) and Toray (Japan), furnished and ensured the Project's technology, licenses, engineering and main equipment and provided the Project with technical assistance for the commissioning of the plant and adequate guarantees for the equipment, in spite of the delay in commissioning that extended beyond the contracted guarantee period.

3.11 In the Appraisal Report, it was anticipated that 46.7% of the equipment and 90.8% of the licensing and engineering costs would be payable in foreign exchange. The actual cost of imported equipment and supplies (US\$30.5 million) and technology (US\$7.9 million) amounted, respectively, to 44% and 68% of the total for these categories. Romanian enterprise supplied, through ICB, 23.2% of the Bank financed goods and services. Among foreign suppliers, the most important ones were Japan, the Federal Republic of Germany (FRG) and the US (Annex 3-1).

G. Implementation Schedule

3.12 Estimated and actual implementation schedules for the Project are shown in Annex 3-2. Commissioning was scheduled for January 1980 at the time of appraisal. Actual commissioning was spread out between June 1981 and December 1982. The Project's start-up has been assumed to have taken place in March 1982, when the full capacity of polyester polymer making was attained and the first and most of the second spinning lines were mechanically completed.

3.13 The Project completion delay was 26 months. The main reasons were:

- (a) design and engineering delays caused by differences between the metric system used by Toray and Mitsubishi and the US standards used by Chemtex and Romanian agencies;
- (b) repeated alterations made by the technology suppliers in the technical documentation required to manufacture locally a part of the equipment and technical installations;
- (c) delays in contracting some locally manufactured and foreign equipment due to tardiness in finalizing the technical documentation; and
- (d) the fact that some local factories were manufacturing, for the first time domestically, specialized equipment based on the technical documentation provided by the licensor and technology suppliers.

Given the high level of technology transfer achieved, the project implementation schedule is, however, considered reasonable.

H. Ecology

3.14 The plant does not cause environmental problems since gas and liquid effluent levels are kept low. Liquid effluents resulting from the production process (i.e. organic substances, slurry, sulphates and petroleum products) are treated in a biological and chemical treatment plant before being discharged into the river. The cost of this plant is included in the Project costs. The plant installations are also provided with ventilation systems that maintain suspended particles within internationally accepted standards.

I. Capital Cost, Financing and Loan Disbursement

3.15 Capital cost estimates at the time of appraisal and actual figures are shown in Annex 3-3, summarized in the following table:

Capital Cost and Financing Required
(US\$ million equivalent)^{a/}

	<u>Appraisal Estimate</u>			<u>Actual</u>		
	<u>Foreign Exchange</u>	<u>Local</u>	<u>Total</u>	<u>Foreign Exchange</u>	<u>Local</u>	<u>Total</u>
Total Fixed Cost	50.2	71.7	121.9	50.0	66.1	116.1
Working Capital	0.2	6.8	7.0	-	8.7	8.7
Total Project Cost	<u>50.4</u>	<u>78.5</u>	<u>128.9</u>	<u>50.0</u>	<u>74.8</u>	<u>124.8</u>
Interest during Construction	<u>6.0</u>	<u>1.2</u>	<u>7.2</u>	<u>12.2</u>	<u>0.6</u>	<u>12.8</u>
Total Financing Required ^{b/}	<u>56.4</u>	<u>79.7</u>	<u>136.1</u>	<u>62.2</u>	<u>75.4</u>	<u>137.6</u>

a/ Calculated at the official rates in force each year during construction

b/ Nominal interest paid by the Enterprise to the Investment Bank through the end of 1982.

3.16 Total financing required for the Project expressed in US\$ equivalent was slightly higher than the 1977 estimate due to delay in commissioning but the actual project cost, at US\$124.8 million, is 3.2% lower than the appraisal estimate.

3.17 Because of revaluation of the Lei which took place on March 6, 1978 (from Lei 20 to Lei 18 to the US\$) and on December 31, 1980 (from Lei 18 to Lei 15 to the US\$), the Project cost expressed in Lei are significantly different from those expressed in US\$. Thus, total financing required for the Project (excluding interest during construction) amounted to Lei 2,316 million, a reduction of 14.9% when compared to the appraisal estimate of Lei 2,722 million and the Project cost (Lei 2,104 million) is 18.4% lower than the estimate at the time of the appraisal (Lei 2,578 million).

3.18 In implementing the project, savings were registered in most cost categories of expenditures: equipment, civil works, licenses & engineering, technological tests. This is mainly due to favorable price developments and efficient implementation, that compensated for some additional costs due to delays in commissioning the plant on time. The actual cost of direct imports (US\$38.4 million) was 3.6% lower than the 1977 estimate. As has been found in other Bank-financed projects, there was a significant (20.1%) underrun in the local currency cost of the Cimpulung Project. This is mainly due to conservative cost estimates used in the techno-economic studies and the good coordination in the project preparation by the several agencies involved. In spite of the revaluation of the Lei mentioned above, the cost of local expenditures expressed in US\$ has also decreased but by only 4.7% from US\$78.5 to US\$74.8 million (Annex 3-3).

3.19 Annual capital cost expenditures are shown in Annex 3-4. Initially, the closing date of the Bank Loan was March 31, 1981. As a result of the delays in Project implementation (para 3.13), the Bank agreed to a one-year extension of the closing date through March 31, 1982. The actual schedule of Loan disbursements has therefore significantly departed from that estimated at the time of appraisal. Compared to the appraisal estimates (Annex 3-5), disbursements were as follows:

<u>Project Cumulative Disbursements</u> (US\$ million)		
<u>Year</u>	<u>Appraisal Estimates</u>	<u>Actual</u>
1977	5.0	1.5
1978	32.5	23.5
1979	46.2	30.9
1980	50.0	40.1
1981	50.0	46.1
1982 (1st quarter)	50.0	50.0

3.20 To meet the shortfall in some categories, especially for the main package, proceeds of the Loan were reallocated on January 28, 1981, and actual disbursements as compared to the appraisal estimates were as follows:

<u>Allocation of Loan Proceeds - US\$ Million</u>			
	<u>Original</u> (Appraisal Report)	<u>Reallocated</u> (Approved 01/28/81)	<u>Disbursed</u> (Actual)
<u>Category I</u> - Imported technology, and engineering for the Plant, and equipment and spare parts and training - 100% of foreign expenditures	23.6	29.0	27.6
<u>Category II</u> - Stainless steel, special materials and intermediate products - 100% of foreign expenditures	10.9	6.8	7.5
<u>Category III</u> - Specialized equipment - 100% of foreign expenditures	5.3	3.0	3.3
<u>Category IV</u> - Equipment for power plant, recovery systems for raw materials and by-products and other equipment agreed between the Bank and the Borrower 100% of foreign or ex-factory local expenditures	<u>10.2</u>	<u>11.2</u>	<u>11.6</u>
Total	<u>50.0</u>	<u>50.0</u>	<u>50.0</u>

IV. OPERATING PERFORMANCE

A. Production Build-up

4.01 Although the Project should have been fully completed by January 1980, the actual commissioning dates were the following

Project Commissioning Schedule

Polyester chips	June 1981
First line polyester fiber	March 1982
Second line polyester fiber	Aug. 1982
Third line polyester fiber	Dec. 1982

As a result of the above, production has also lagged behind schedule, having reached 40% capacity utilization in 1982. Full capacity operation is expected by 1984. (Actual and projected output of the Enterprise is shown in Annex 4-1).

4.02 Most of the Projects' output will be sold to other Romanian enterprises. Polyester chips will be sold to the Vaslui Polyester Enterprise to produce filament yarn. Polyester cotton-type staple and other types of fiber are to be sold to spinning enterprises and further downstream to weaving mills and knitting mills under the same Ministry.

B. Market Development

4.03 Polyester production and consumption are coordinated at a central level. Overall programs are approved by the Council of Ministers. The attainment of the approved levels of production are the responsibility of the Central, which establishes and issues annual quantitative shares for each producer and consumer. Actual figures for the country's production and consumption of synthetic fibers in 1980 - 1982 and present projections for 1985 are shown below and compared with the figures planned in 1977, at the time of appraisal.

ROMANIA - Synthetic Fiber Production and Consumption

	<u>Appraisal Estimates</u>		<u>Actual Figures and New Projections</u>			
	<u>1980</u>	<u>1985</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1985</u>
Production	164.3	181.7	141.0	146.4	159.7	227.8
Exports	24.1	-	25.7	17.7	17.7	44.7
Imports	-	49.5	3.1	4.2	-	0.5
Apparent Mill Consumption	140.2	231.2	118.4	132.9	142.0	183.6

The actual figures for 1980 are significantly (14.2%) lower than originally expected because of the commissioning delay; but 1985 production is projected to be higher.

V. FINANCIAL PERFORMANCE

A. Value of Sales and Production Costs

5.01 Present Romanian prices for the Project products and unit costs of the main inputs are shown in Annex 5-1. The average price of polyester in 1982 was 41.8% higher than at the time of appraisal in 1977 and the cost of the two main raw materials - DMT and EG - increased by 47.7% and 37.5% respectively. The cost of fuel increased in the same period by 280% while that of power increased by only 7%. Overall operating costs increased by 40.7%.

5.02 Unit consumption of the main raw materials has met the specifications of the suppliers of technology and process equipment and therefore departs little from the figures used at the time of appraisal. Operating costs of full capacity are shown in Annex 5-2.

B. Financial Analysis

5.03 Financial results and projections are shown in Annex 5-3. They are based on actual volume and value of sales through the end of 1982; projections are based on the present prices applied to the forecast volume of production and sales.

5.04 The internal financial rate of return calculated on the basis of the above analysis is 5.6% (Annex 5-4), compared to 4.7% estimated at the time of appraisal. The increase in product prices has more than compensated for the higher unit cost of inputs and the delays in project completion (para. 5.01).

VI. ECONOMIC PERFORMANCE

6.01 The international market for polyester is at present (September 1983) in an unbalanced situation, with export prices as low as US\$0.52/lb being offered by East Asian countries, while the prevailing prices in Japan and the US are US\$0.72-0.73/lb. In Western Europe, polyester prices average US\$0.67 and this price (less freight) has been assumed for years 1983 and 1984, since the Romanian synthetic fiber is geared for competition in the European market. Because of the existing world-wide recession present polyester prices are below cost plus a reasonable return on invested funds. A balanced supply/demand market is expected to result in a price of not less than US\$0.80/lb by the late 1980s.

6.02 For the calculation of the economic rate of return, polyester prices have been assumed to build up from present levels to the equilibrium value mentioned above over a period of four years. The prices for DMT and EG have also been adjusted and those for electric power and fuel have been changed from their 1982 domestic levels of Lei 415.8 (US\$27.72) per MWh and Lei (US\$121.67) per ton to Lei 450 (US\$30)/MWh and Lei 2,250 (US\$150)/MT respectively. The other costs have been maintained at the same level as those used in the financial analysis.

6.03 The economic rate of return calculated on the basis of the above is 14.2% (Annex 6-2) as compared to 15.6% estimated during appraisal. The slightly lower return is due to the completion delay and the current depressed economic price for polyester.

VII. BANK ROLE AND LESSONS LEARNED

A. Bank Role

7.01 During the mid-1970s, the project formed part of a broad-based effort on the part of the Bank to assist Romania in improving the performance of its industrial sector. Other projects selected include those in the fertilizer, steel, chemicals, fibers, and mechanical subsectors. This Project was selected because it included the acquisition of modern technology (introducing continuous polyester polymerization and spinning) and was based on the substitution of imports of a key industrial intermediate: polyester fiber for the textile and tire industries.

7.02 The Bank actively supported the Romanian agencies in defining the main technology and equipment package and in the preparation for competitive bidding for that package, including satisfactory performance guarantees. The Bank also assisted the Enterprise in the procurement of other equipment and supplies thus helping in lowering the total project cost. The Project has included a substantial transfer of modern technology developed by a consortium of three international firms, among the best qualified in the field of polyester technology. This transfer was directed not only to the Project itself but also, through the collaboration for the supply of some specialized equipment domestically, to the machinery building industries. Finally, the Bank assisted the Romanian agencies in developing more realistic projections for textile fibers supply and demand and determining priority for development of natural and man-made fiber supply.

7.03 Overall, the Bank has helped the Romanian agencies to develop a better understanding of economic criteria in project evaluation. This Project is one example of this continuing process. Also, the Project created nearly 2,000 new jobs and tapped a pool of women workers in a rural area where male employment was predominant.

B. Lessons Learned

7.04 The experience gained in this Project confirms lessons learned in previous Romanian projects. Project implementation was reasonably successful despite a 26 month delay. Early supervision proved beneficial in completing all arrangements for proper engineering and technology acquisition, and in developing adequate procurement procedures. Guidance provided to the project sponsor in the early stages was critical in this instance, and led to a better understanding of the Bank's procedures and thus to more efficient project implementation. This point has been confirmed in a number of other projects in Romania.

7.05 A long time was required to negotiate the supply of the main technology package with the international consortium mentioned above. The purpose of the extended negotiations was to obtain a price consistent with estimated costs, obtain maximum information on technology and to minimize the foreign content of the package. Overall the transfer of technology achieved in this project is deemed successful but at the cost of a delayed start-up.

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

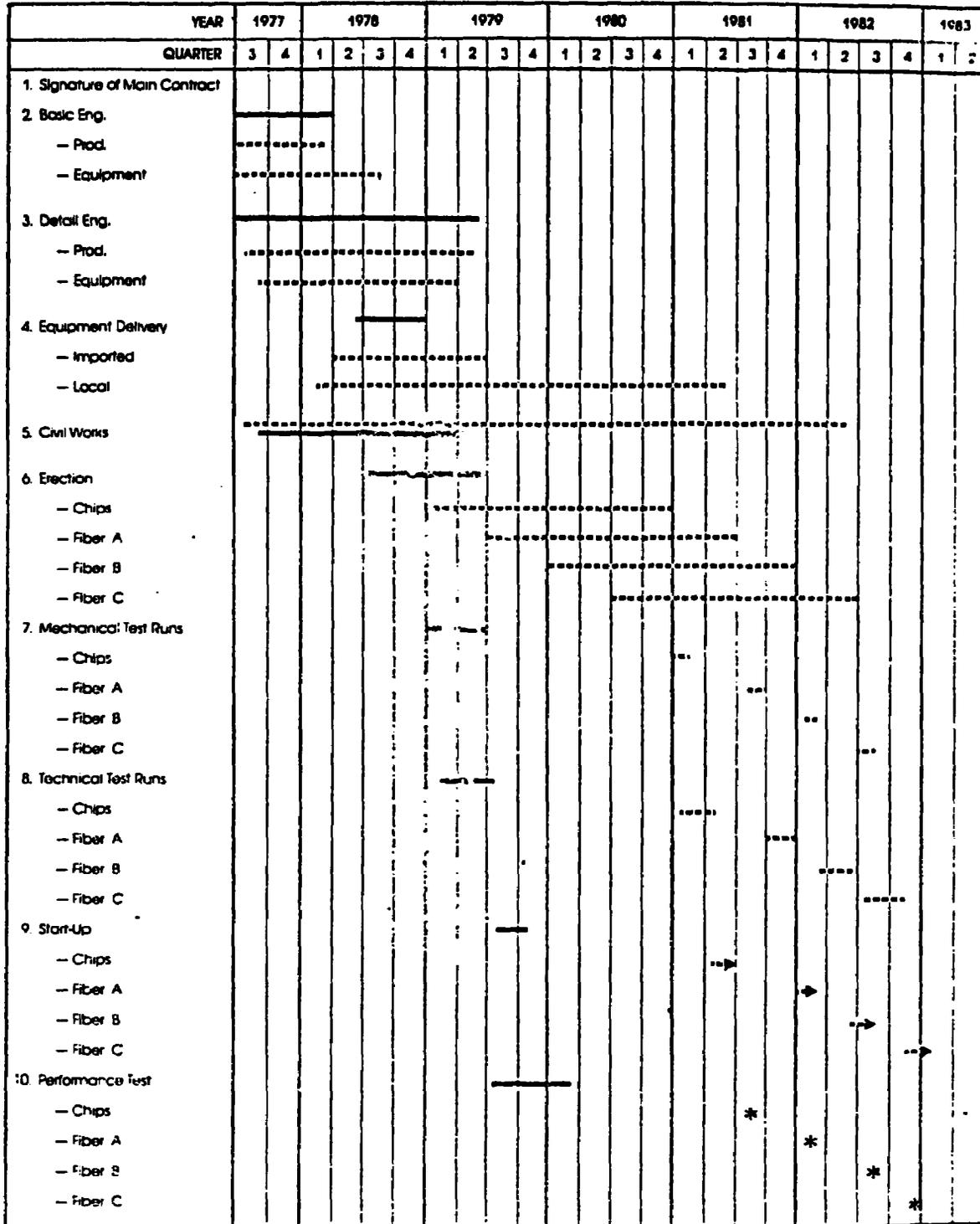
PROJECT COMPLETION REPORT

Procurement of Bank-Financed Goods and Services
By Country of Origin

	<u>Amount</u> <u>(US\$ Million)</u>	<u>Percentage</u>
Japan	28.0	56.0
Romania	11.6	23.2
F.R. of Germany	3.2	6.4
USA	2.2	4.4
Austria	1.6	3.2
Italy	1.3	2.6
United Kingdom	0.8	1.6
Switzerland	0.5	1.0
France	0.5	1.0
Belgium	0.1	0.2
Netherland	0.1	0.2
Sweden	<u>0.1</u>	<u>0.2</u>
	<u>50.0</u>	<u>100.0</u>

Industry Department
October 1983

ROMANIA
CIMPULUNG MUSCEL POLYESTER PROJECT
Construction Schedule



————— Actual
 Original

* = Actual

World Bank - 1983

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Capital Cost and Financing Required
(in millions)

	Appraisal Estimates ^{a/}						Actual ^{b/}					
	Local		Foreign		Total		Local		Foreign		Total	
	Lei	\$	Lei	\$	Lei	\$	Lei	\$	Lei	\$	Lei	US\$
Equipment, Supplies & Spares	422	21.1	611	30.5	1,033	51.6	425	25.0	591	34.7	1,016	59.7
Civil Works, Erection and Supervision	660	33.0	68	3.4	728	36.4	478	28.1	125	7.4	603	35.5
Licenses & Engineering	32	1.6	174	8.7	206	10.3	44	2.6	134	7.9	178	10.5
Pre-Operating Costs	46	2.3	-	-	46	2.3	39	2.3	-	-	39	2.3
Training	14	0.7	3	0.2	17	0.9	53	3.1	-	-	53	3.1
Others	84	4.2	6	0.3	90	4.5	84	5.0	-	-	84	5.0
Total Base Cost (BCE)	1,258	62.9	862	43.1	2,120	106.0	1,123	66.1	850	50.0	1,973	116.1
Physical Contingencies (PC)	151	7.6	68	3.4	219	11.0	-	-	-	-	-	-
Price Escalation	25	1.2	74	3.7	99	4.9	-	-	-	-	-	-
Total Fixed Cost	1,434	71.7	1,004	50.2	2,438	121.9	1,123	66.1	850	50.0	1,973	116.1
Working Capital	136	6.8	4	0.2	140	7.0	131	8.7	-	-	131 ^{c/}	8.7
Total Project Cost	1,570	78.5	1,008	50.4	2,578	128.9	1,254	74.8	850	50.0	2,104	124.8
Interest During Construction	24	1.2	120	6.0	144	7.2	10	0.6	202	12.2 ^{e/}	212	12.8
Total Financing Required	1,594	79.7	1,128	56.4	2,722	136.1	1,264	75.4	1,052	62.2	2,316	137.6

^{a/} Exchange Rate: Lei 20/US\$1.

^{b/} Exchange Rate: Lei 20/US\$1 until March 5, 1978; Lei 18/US\$1 between March 6, 1978 and December 31, 1981, and Lei 15/US\$1 in 1981 and 1982.

^{c/} As of December 31, 1982.

^{d/} Actual paid as of December 31, 1982.

^{e/} Actual paid in US\$ at the exchange rate in each payment day.

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Annual Capital Expenditures (1977-82)

	In Lei Million						Total
	1977	1978	1979	1980	1981	1982	
Total Fixed Cost	141.9	527.8	254.8	350.2	357.2	341.1	1,973.0
(of which foreign)	(1.5)	(22.0)	(7.4)	(9.2)	(6.0)	(3.9)	
(50.0) Working Capital		-	-	-	-	77.0	54.0
131.0							
Interest and Financial							
Charges During Construction							
- Local	-	0.5	2.1	3.1	3.0	1.3	10.0
- Foreign (IBRD Loan)	2.2	18.0	40.1	50.3	48.3	43.1	202.0
Total	144.1	546.3	297.0	403.6	485.5	439.5	2,316.0

	(In US\$ millions equivalent)						
	1977	1978	1979	1980	1981	1982	Total
Total Fixed Cost	7.09	28.76	14.15	19.46	23.81	22.75	116.02
Working Capital	-	-	-	-	5.13	3.60	8.73
Subtotal	7.09	28.76	14.15	19.46	28.94	26.35	124.75
Interest (local funds)	-	0.03	0.12	0.17	0.20	0.09	0.61
Interest (Bank Loan)	0.11	0.98	2.23	2.80	3.22	2.87	12.21
Total	7.20	29.77	16.50	22.43	32.36	29.31	137.57

Exchange Rates:

Before March 5, 1978	- Lei 20/US\$1
From March 6, 1978 through December 31, 1980	- Lei 18/US\$1
From January 1, 1981 through December 31, 1982	- Lei 15/US\$1

Industry Department
October 1983

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Estimated and Actual Disbursement Schedules
(US\$ Million)

<u>Calendar Year</u>	<u>Quarter</u>	<u>Appraisal Report</u>		<u>Actual</u>	
		<u>Quarter</u>	<u>Cumulative</u>	<u>Quarter</u>	<u>Cumulative</u>
1977	III	5.0	5.0	-	-
	IV	5.0	10.0	1.5	1.5
1978	I	5.0	15.0	2.6	4.1
	II	5.0	20.0	5.0	9.1
	III	6.0	26.0	6.5	15.6
	IV	6.5	32.5	7.9	23.5
1979	I	4.5	37.0	3.1	26.6
	II	4.0	41.0	2.1	28.7
	III	3.0	44.0	0.9	29.6
	IV	2.2	46.2	1.3	30.9
1980	I	1.8	48.0	4.3	35.2
	II	2.0	50.0	4.0	39.2
	III	-	50.0	0.5	39.7
	IV	-	50.0	0.6	40.3
1981	I	-	50.0	1.1	41.4
	II	-	50.0	1.5	42.9
	III	-	50.0	1.1	44.0
	IV	-	50.0	2.1	46.1
1982	I	-	50.0	3.6	49.7
	II	-	50.0	0.3	50.0

ROMANIA - CIMPULUNG POLYESTER PROJECT

PROJECT COMPLETION REPORT

Estimated and Actual Production
(000 tons)

Volume	1980		1981		1982		1983		1984-93
	Appraisal Estimates	Actual	Appraisal Estimates	Actual	Appraisal Estimates	Actual	Appraisal Estimates	New Estimates	New Estimates
	00.0	-	00.0	0.0	00.0	00.0	00.0	00.0	00.0
Chips	9.1	-	12.2	5.6	15.2	10.6	15.2	14.5	15.7
Cotton-Type Staple	6.3	-	8.4	-	10.5	5.6	10.5	17.1	10.5
Wool-Type Staple	0.5	-	0.6	-	0.8	0.2	0.8	-	0.8
Wool-Type Tow	3.1	-	4.2	-	5.2	1.7	5.2	7.8	5.2
Wool-Type Tops	3.0	-	4.0	-	5.0	0.5	5.0	2.6	5.0
Flax-Type Staple	<u>6.0</u>	-	<u>8.0</u>	-	<u>10.0</u>	-	<u>10.0</u>	-	<u>10.0</u>
Subtotal Polyester	<u>28.0</u>	-	<u>37.4</u>	<u>5.6</u>	<u>46.7</u>	<u>18.6</u>	<u>46.7</u>	<u>42.0</u>	<u>47.2</u>
Methanol (Recovered)	10.8	-	14.4	2.1	18.0	7.1	18.0	13.0	13.0
Waste Fibers (Recovered)	-	-	-	-	-	-	-	-	2.1

Industry Department
October 1983

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Actual and Estimated Sales Revenues
(Lei million)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984-94</u>
<u>Capacity Utilization - %</u>	12	40	90	100
<u>Sales Volume (000 tons)</u>				
PES Chips	5.6	10.6	14.5	15.7
PES Cotton-Type Staple	-	5.6	17.1	10.5
PES Wool-Type Staple	-	.2	-	.8
PES Wool-Type Tow	-	1.7	7.8	5.2
PES Wool-Type Tops	-	.5	2.6	5.0
PES Flax-Type Staple	-	-	-	10.0
Sub-total Pes	<u>5.6</u>	<u>18.6</u>	<u>42.0</u>	<u>47.2</u>
Methanol (Recovered)	2.1	7.1	13.0	14.3
Waste Fibers (Recovered)	-	-	-	2.1
<u>Sales Revenues (Lei Million)</u>				
PES Chips	88.4	230.5	391.5	423.9
PES Cotton-type Staple	-	142.3	547.2	336.0
PES Wool-type Staple	-	5.9	-	24.3
PES Wool-type Tow	-	38.6	237.9	158.6
PES Wool-type Tops	-	15.0	84.7	162.5
PES Flax-type Staple	-	-	-	329.0
Sub-Total PES	<u>88.4</u>	<u>432.3</u>	<u>1,261.3</u>	<u>1,434.3</u>
Methanol (Recovered)	1.8	9.9	23.5	25.8
Waste Fibers (Recovered)	-	-	-	10.5
Total Sales Revenues	<u>90.2</u>	<u>442.2</u>	<u>1,284.8</u>	<u>1,470.6</u>

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Estimated and Actual Production, Prices and Unit Cost of
Materials and Utilities

	<u>Quantities at Full Capacity Operation</u>		<u>Prices and Unit Costs</u>		
	<u>Appraisal</u>		<u>Appraisal</u>	<u>%</u>	
	<u>Estimates</u>	<u>Actual</u>	<u>Estimates</u>	<u>Actual^{a/}</u>	<u>Increase</u>
	<u>(tons/year)</u>		<u>(Lei/ton)</u>		
<u>Production Profile</u>					
PES Chips	15,200	15,700	17,200	27,000	57.0
PES Staple: Cotton-Type Staple	10,500	10,500	23,500	32,000	36.2
Wool-Type Staple	800	800	22,350	30,400	36.0
Wool-Type Tow	5,200	5,200	22,350	30,500	36.5
Wool-Type Tops	5,000	5,000	23,900	32,500	36.0
Flax-Type Staple	10,000	10,000	24,200	32,900	36.0
Sub-total	46,700	47,200	133,500	185,300	38.8
Methanol (Recovered)	18,000	14,309	850	1,800	111.8
Waste Fibers	-	2,100	-	5,000	-
<u>Raw Materials</u>					
DMT ^{b/}	48,518	49,600	8,800	13,000	47.7
Ethylene Glycol ^{c/}	18,232	19,545	8,000	11,000	37.5
<u>Utilities</u>					
Power Purchased from Grid (MWh)	40,000	27,000	388	415.8	7.2
Fuel - tons	40,000	46,825	480	1,825	280.2
Water (000 m ³)			764	1,070	40.0

a/ 1982 prices per physical unit.

b/ Approximately 1.05 tons of DMT per ton of PES (the 1.072 estimate in the Appraisal Report was gross of DMT recoveries; the net value was 1.04 tons of DMT per ton of PES).

c/ Approximately 0.414 tons of EG per ton of PES (0.390 appraisal estimate).

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Annual Full Capacity Costs
(Lei Millions)

	<u>Appraisal</u> <u>Estimates</u>	<u>Actual</u>
<u>Raw Materials</u>		
DMT	427.0	644.8
Ethylene Glycol	145.8	215.0
Auxiliary Materials	23.8	22.3
Others (Catalysts, Packings)	-	26.4
Sub-Total	<u>596.6</u>	<u>908.5</u>
<u>Utilities</u>		
Power, Grid Purchases	15.5	11.3
Fuel	19.2	85.5
Others	5.2	23.1
Sub-Total	<u>39.9</u>	<u>119.9</u>
<u>Labor</u>		
Wages and Salaries	48.8	62.4
Social Tax	11.2	23.8
Sub-Total	<u>60.0</u>	<u>86.2</u>
<u>Other Costs - Operating Expenses</u>		
Depreciation	113.6	81.3
Plant Overhead, Maintenance and Repairs	63.0	45.8
Sub-Total	<u>176.6</u>	<u>127.1</u>
Total Costs	<u>873.1</u>	<u>1,241.7</u>
Annual Sales Revenues	1,019.1	1,470.6
Benefits (Before Interest on IBRD Loan)	146.0	228.9

Industry Department
October 1983

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Financial Projections
(in million Lei ^{a/})

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985-96</u>
	(in million Lei)				
<u>Sales</u> (Annex 4-2)	90.2	442.2	1,284.8	1,470.6	1,470.6
<u>Costs</u>					
- Cost of Goods	108.8	453.3	1,092.4	1,160.4	1,160.4
- Depreciation	<u>24.0</u>	<u>59.6</u>	<u>75.6</u>	<u>81.3</u>	<u>81.3</u>
- Total Cost	<u>132.8</u>	<u>512.9</u>	<u>1,168.0</u>	<u>1,241.7</u>	<u>1,241.7</u>
Net Profits	(42.6)	(70.7)	116.8	228.9	228.9
<u>Cash Flow</u>					
- Net Profits	(42.6)	(70.7)	116.8	228.9	228.9
- Depreciation	<u>24.0</u>	<u>59.6</u>	<u>75.6</u>	<u>81.3</u>	<u>81.3</u>
Total Cash Flow	<u>(18.6)</u>	<u>(11.1)</u>	<u>142.4</u>	<u>310.2</u>	<u>310.2</u>
<u>Service on IBRD Loan</u>	105.3 ^{b/}	107.4 ^{b/}	113.8 ^{c/}	115.3 ^{c/}	109.6 ^{d/}
Cash Surplus (Deficit)	(123.9)	(118.5)	78.6	194.9	200.6 ^{e/}

----- (in US\$ equivalent) -----

Sales	5.3	26.0	75.6	86.5	86.5
Operating Costs	6.4	26.7	64.2	68.2	68.2
Operating Benefits (excluding depreciation, interest & taxes)	(1.1)	(0.7)	11.4	18.3	18.3

a/ Actual data for 1981-1983 and estimates for 1984 and thereafter.

b/ Exchange rate: US\$1 = Lei 15

c/ Exchange rate: US\$1 = Lei 16.5

d/ Same exchange rate as in 1983 but diminishing interest payments after 1985.

e/ Margin increasing in years following 1985.

Industry Department
October 1983

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Cost and Benefit Streams for
Financial Rate of Return Calculations
(In constant 1982 US\$ millions)

	<u>Total Capital</u> <u>Costs a/</u>	<u>Operating</u> <u>Benefits b/</u>	<u>Net</u> <u>Benefits</u>
1977	10.6	-	(10.6)
1978	36.5	-	(36.5)
1979	16.0	-	(16.0)
1980	20.0	-	(20.0)
1981	31.2	(1.1)	(32.3)
1982	26.3	(0.7)	(27.0)
1983	-	11.4	11.4
1984	-	18.3	18.3
1985	-	18.3	18.3
1986	-	18.3	18.3
1987	-	18.3	18.3
1988	-	18.3	18.3
1989	-	18.3	18.3
1990	-	18.3	18.3
1991	-	18.3	18.3
1992	-	18.3	18.3
1993	-	18.3	18.3
1994	(21.9) <u>c/</u>	18.3	40.2

(RATE OF RETURN: 5.6%)

a/ From Annex 3-4 Figures deflated by following indices: (1982)
1982=100, 1977=66.6, 1978=78.8, 1979=88.2, 1980=97.1,
1981=92.6.

b/ From Annex 5-3.

c/ Recovery of US\$8.7 million in working capital and 10% of
fixed investment of US\$131.9 million.

Industry Department
October 1983

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Annual Economic Benefits and Costs

		<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987-</u> <u>94</u>
<u>Sales</u>								
Polyester Volume	000 MT	5.6	18.6	42.0	47.2	47.2	47.2	47.2
Unit Price ^{a/}	US\$/MT	<u>1,632</u>	<u>1,632</u>	<u>1,452</u>	<u>1,540</u>	<u>1,630</u>	<u>1,720</u>	<u>1,760</u>
Polyester Sales	US\$ Million	<u>9.14</u>	<u>30.36</u>	<u>60.98</u>	<u>72.69</u>	<u>76.94</u>	<u>81.18</u>	<u>83.07</u>
Other Sales	US\$ Million	<u>0.26</u>	<u>0.97</u>	<u>2.18</u>	<u>2.42</u>	<u>2.66</u>	<u>2.82</u>	<u>3.05</u>
Total Sales Revenue	US\$ Million	<u>9.40</u>	<u>31.33</u>	<u>63.16</u>	<u>75.11</u>	<u>79.60</u>	<u>84.00</u>	<u>86.12</u>
<u>Inputs</u>								
DMT	000 MT	5.9	19.5	44.1	49.5	49.5	49.5	49.5
EG	000 MT	2.3	7.7	17.4	19.5	19.5	19.5	19.5
Electric Energy	000 MWh	3.2	10.6	24.0	27.0	27.0	27.0	27.0
Fuel	000 MT	5.5	18.4	41.7	46.8	46.8	46.8	46.8
<u>Unit Prices</u>								
DMT ^{b/}		528	528	528	528	528	550	572
EG ^{c/}		462	462	462	462	462	484	506
<u>Costs</u>								
DMT	US\$ Million	3.1	10.3	23.3	26.1	26.1	27.2	28.3
EG	US\$ Million	1.1	3.5	8.0	9.0	9.0	9.4	9.8
Electric Energy ^{d/}	US\$ Million	0.1	0.3	0.7	0.8	0.8	0.8	0.9
Fuel ^{e/}	US\$ Million	0.9	1.1	2.5	2.9	2.9	2.9	3.0
Other	US\$ Million	4.9	5.8	7.2	8.4	8.8	8.8	9.0
Total Cost	US\$ Million	<u>10.1</u>	<u>21.0</u>	<u>41.7</u>	<u>47.2</u>	<u>47.6</u>	<u>49.1</u>	<u>51.0</u>

a/ Historical prices for 1981 and 1982. The low depressed price of US\$0.66 in 1983 is assumed to increase over a 4-year period to a minimum balanced economic price of US\$ 0.80/lb.

b/ Price expected to increase from US\$0.24 to 0.26/lb.

c/ Priced at US\$0.21-0.23/lb.

d/ At US\$30/KWh.

e/ At US\$165/MT.

ROMANIA - CIMPULUNG-MUSCEL POLYESTER PROJECT

PROJECT COMPLETION REPORT

Cost and Benefit Streams for Economic Rate of Return Calculations

	<u>Fixed Capital Cost</u>	<u>Working Capital</u>	<u>Total Capital Costs</u>	<u>Operating Costs</u>	<u>Sales Revenues</u>	<u>Net Operating Benefits</u>	<u>Net Flow</u>
1977	10.6	-	10.6	-	-	-	(10.6)
1978	36.5	-	36.5	-	-	-	(36.5)
1979	16.0	-	16.0	-	-	-	(16.0)
1980	20.0	-	20.0	-	-	-	(20.0)
1981	25.7	2.7	28.4	10.1	9.4	(0.7)	(29.1)
1982	22.7	1.8	24.5	21.0	31.3	10.3	(14.2)
1983	-	-	-	41.7	63.2	21.5	21.5
1984	-	-	-	47.2	75.1	27.9	27.9
1985	-	-	-	47.6	79.6	32.0	32.0
1986	-	-	-	49.1	84.0	34.9	34.9
1987	-	-	-	51.0	86.1	35.1	35.1
1988	-	-	-	51.0	86.1	35.1	35.1
1989	-	-	-	51.0	86.1	35.1	35.1
1990	-	-	-	51.0	86.1	35.1	35.1
1991	-	-	-	51.0	86.1	35.1	35.1
1992	-	-	-	51.0	86.1	35.1	35.1
1993	-	-	-	51.0	86.1	35.1	35.1
1994	(13.1)	(4.5)	(17.6)	51.0	86.1	35.1	52.7

(RATE OF RETURN: 14.2%)

BANCA DE INVESTIȚII

Bucharest, 1984

(Localitatea și data)

Unitatea Foreign Relations

Serviciul Department

(A se repeta în rasp. dv.)

December 4, 1984

No.15252

Mr. Yukinori Watanabe
Acting Director-General
Operations Evaluation
World Bank

Dear Mr. Watanabe,

Re. Project Completion Report

Cimpulung Muscel Polyester Project - Loan 1448 RO

We thank you for your letter of October 17, 1984, and we inform you on our agreement on the attached draft of the completion report, but we have the following views and comments that we would like to be included in the final report and to eliminate any unclearness from the present draft, as follow :

Text
amended to
incorporate
comments

i. para 2.03 of the draft is mentioning that " IB was committed to charge a nominal interest rate of 10 % on the Loan proceeds used in the Project ". This remark is not according to the case, because the Investment Bank on-lented to the enterprise the Loan proceeds at the same interest rate as those of IBRD - 8.2 %. This is why, we do propose a rewording of the respective phrase as follow : IB on-lent the Loan proceeds to the enterprise at the same interest rate as these applied by IBRD - 8.2 %.

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comments

ii. para 3.13 regarding the reasons for Project completion delay, we do propose to be review and to be presented according to the situations generating them and as have been mentioned in the draft prepared by the Investment Bank, respectively:

(a) design and engineering delays caused by differences between the metric system used by Toray and Mitsubishi and the US standards used by Chemtex and Romanian agencies;

(b) repeated alterations done by the technology suppliers in the technical documentation required to manufacture locally a part of the equipment and technological installations;

(c) delays in contracting some locally manufactured and foreign equipment, caused by delays in ensuring the technical documentation;

(d) delays in the delivery of some local equipment manufactured for the first time domestically, based on the technical documentation supplied by the licence and engineering supplier.

We do sustain the above mentioned taking account that, most of the delays in contracting some locally manufactured and foreign equipment and in the delivery of some locally manufactured equipment were caused by delays in design and engineering and in contracting the supply of the main technology package.

iii. para 3.18 is mentioning that " Also, the Romanian pricing system which includes low domestic inflation rates..." . Related to this, we would like to mention that the Romanian pricing system is characterized by the existence of " stable prices " , that could not vary in function of the changes in individual production and supply condition, ensuring, in the same time, maintenance of the prices level in accordance with the social expenditures, by changing the prices according to the changes of the element took into consideration on the occasion of the establishment of the respective prices.

Accordingly, the draft wording does not correspond to the Romanian pricing system and we do propose to be eliminate from the report.

iv. para 7.05 is mentioning that " Much of the implementation delay was caused by the inexperience of Romanian firms in supplying engineering services and equipment based on a new technology. " .

This mention is making an unrealistic generalisation on the Romanian firms activity.

Some difficulties encountered to this project due to the fact that some equipment have been manufactured domestically for the first time, these could not be considered as being generally and to be applied to the whole activity of Romanian firms in supplying engineering services and equipment based on a new technology, done and for other projects by the Romanian firms. Because we do consider the respective mention as being

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not according to the reality, we would like to be eliminated.

Otherwise, the reasons for the delay were presented in detail, in para 3.13 of the draft.

With these views and comments, that we would like to be included in the final report, we do agreed to the project completion report submitted.

Thanking for your cooperation, we remain,

Sincerely,

Alexandru Olteanu

Director



