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The World Bank

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Report No. 7360

PROJECT COMPLETION REPORT

INDONESIA

**CENTRAL JAVA PULP AND PAPER ENGINEERING PROJECT
(LOAN 2199-INS)**

June 30, 1988

Industry Department

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CURRENCY EQUIVALENTS

Appraisal	US\$1 : Rp 625
Intervening (Average)	US\$1 : Rp 871
Completion (Average)	US\$1 : Rp 1,118

PRINCIPAL ABBREVIATIONS AND ACRONYMS

BAPPENAS	- National Planning Agency
Basuki Rachmat	- Perum Kertas Basuki Rachmat, a public sector paper mill in East Java
DGBCI	- Director General for Basic Chemical Industries
GOI	- Government of Indonesia
KKA	- P.T. Kertas Kraft Aceh
KKC	- P.T. Kertas Kraft Cilacap
Perhutani	- Perum Perhutani, the State Forest Corporation

FISCAL YEAR

April 1 - March 31

Office of Director-General
Operations Evaluation

June 30, 1988

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Project Completion Report on Indonesia - Central Java Pulp and Paper Engineering Project (Loan 2199-INS)

Attached, for information, is a copy of a report entitled "Project Completion Report on Indonesia - Central Java Pulp and Paper Engineering Project (Loan 2199-INS)" prepared by the former Industry Department. As a result of the reorganization the PCR was reviewed by the Asia Regional Office. Further evaluation of this project by the Operations Evaluation Department has not been made.

Yves Rovani

by Graham Donaldson

Attachment

PROJECT COMPLETION REPORTINDONESIA - CENTRAL JAVA PULP AND PAPER ENGINEERING PROJECT(LOAN NO. 2199-INS)TABLE OF CONTENTS

	<u>Page No.</u>
PREFACE	1
BASIC DATA SHEET	11
HIGHLIGHTS	111
I. INTRODUCTION	1
II. PROJECT BACKGROUND	1
A. Project Preparation, Approval and Effectiveness	2
B. Project Description and Objective	2
III. PROJECT IMPLEMENTATION AND MANAGEMENT	4
A. Achievement of Project Objectives	4
B. Project Management	5
C. Training	6
D. Use of Consultants	6
E. Implementation Schedule	6
F. Project Cost and Disbursement	7
IV. BANK PERFORMANCE	8
V. LESSONS LEARNED	10

PROJECT COMPLETION REPORT

INDONESIA - CENTRAL JAVA PULP AND PAPER ENGINEERING PROJECT

(LOAN NO. 2199-INS)

PREFACE

This Report covers an Engineering Project to finance technical assistance and studies for the Central Java Pulp and Paper Mill in Indonesia. The Engineering Project was to carry out the detailed project preparation activities for the construction of the Central Java mill and to identify the sector development strategy and restructuring program within which the Central Java mill would operate.

This Project Completion Report has been prepared by the Industry Department based on information in the Project File, knowledge of staff and discussions with those who were associated with the Project.

In accordance with the revised procedures for project performance audit reporting, this Project Completion Report was read by the Operations Evaluation Department (OED), but the project was not audited by OED staff.

Following standard procedures, OED sent copies of the draft report to the Borrower for comments; however, none were received.

PROJECT COMPLETION REPORT

INDONESIA - CENTRAL JAVA PULP AND PAPER ENGINEERING PROJECT

(LOAN NO. 2199-INS)

BASIC DATA SHEET

Key Project Data

<u>Original</u>	<u>Disbursed</u>	<u>Cancelled</u>	<u>Repayment</u>	<u>Outstanding</u>
5.5	1.5	4.0	-	1.5

Cumulative Loan Disbursement

	<u>FY84</u>		<u>FY85</u>		<u>FY86</u>	
	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>
Planned	0.10	2.00	4.10	5.50	5.50	5.50
Actual	0.59	1.03	1.26	1.39	1.47	1.47

Other Data

	<u>Original</u>	<u>Actual</u>
Board Approval		09/21/82
Loan Agreement		11/18/82
Effectiveness		05/02/83
Closing Date	09/30/84	09/30/86
Completion	05/31/84	06/30/86

Mission Data

	<u>Month/Year</u>	<u>Weeks</u>	<u>Persons</u>	<u>Manweeks</u>	<u>Date of Report</u>
Preparation	11/80	3	3	9	12/17/80
Preparation	06-07/81	4	3	12	08/06/81
Preappraisal	02-03/82	3	3	9	03/19/82
Supervision	12/82	2	1	2	01/25/83
Supervision	02/83	1	2	2	04/18/83
Supervision	11/83	2	1	2	12/05/83
Supervision	05/84	2	2	4	05/29/84
Supervision	10/84	3	3	9	11/07/84
Supervision	06/85	2	2	4	08/29/85

PROJECT COMPLETION REPORT

INDONESIA - CENTRAL JAVA PULP AND PAPER ENGINEERING PROJECT

(LOAN NO. 2199-INS)

HIGHLIGHTS

i. In agreement with the recommended strategy for the long-term development of the pulp and paper subsector, the Government of Indonesia (GOI) and the Bank prepared for the construction of a sack kraft paper mill in Central Java to produce about 106,000 tpy of sack kraft paper. The preparation work was to be implemented in two phases: Phase I - engineering, and Phase II - construction. A loan of US\$5.5 million was approved in 1982 to finance the engineering phase, consisting mainly of consulting services (i) to carry out a detailed engineering study for the integrated mill and prepare for the mill construction project (e.g., documentation for procurement, financing plan); (ii) prepare for the wood supply arrangements, including training of Indonesian staff; and (iii) undertake a sector study to identify development restructuring actions and policy measures to ensure a rational long-term development of the pulp and paper industry in the country.

ii. GOI created a company, PT Kertas Kraft Cilacap (KKC), to implement the Engineering Project and eventually operate the Central Java mill with the support of qualified technicians from an existing public sector paper mill experienced in wood raw material. A Japanese paper company was appointed as technical advisor to KKC. Together, they have prepared detailed engineering design of the KKC mill as well as draft bidding documentation. These were reviewed by Bank staff who were also active in discussing the mill's financing plan with GOI. A long-term wood supply arrangement was agreed in principle between KKC and Perum Perhutani, the state forest corporation. Selection of the technical consultants to design the first phase of an optimal wood-cutting plan was, however, not carried out due to unresolved issues on the KKC project (para 3.01).

iii. These preparation activities were however interrupted in 1985, two years after the effectiveness of the engineering loan because there was a serious difficulty in locating private domestic and foreign investors. Several avenues were explored including the use of a portion of Bank funds to close the equity gap and possible IFC participation. As one possible means of attracting investors, the Bank recommended that GOI encourage mill partnership to the private sector wherein such private partner would have had actively participated in mill operation and decision-making.

iv. GOI finally succeeded in reviving an old project idea of a sack kraft mill in Aceh, Sumatra, after several years of stop-and-go negotiations with different equipment suppliers on the project's financing plan. The GOI's keenness in setting up the Aceh mill was based essentially

on a broader political objective of developing the area of Aceh in particular, and the island of Sumatra in general. Although the Bank was not invited by GOI to review the Aceh project proposal, the Bank had repeatedly advised GOI that the limited market prospects for sack kraft do not justify building two sack kraft mills in the country at the same time, and that to go ahead with Aceh would mean a Bank withdrawal from the KKC project. As GOI disagreed with the Bank's market assessment, it commissioned, with Bank agreement, the Japanese technical advisor to KKC to undertake a sack kraft market study.

v. As the findings of this market study confirmed the need for only one sack kraft mill in Indonesia at that time, GOI requested the Bank to consider KKC as a mill with a different product mix, namely bleached long-fiber pulp, for use by the existing Indonesian paper mills. This proposed change in project scope led to the commissioning of a new feasibility study to determine KKC's commercial and economic viability as a market pulp mill. Just as the results of this second feasibility study confirmed the viability of a 130,000 tpy long-fiber bleached pulp mill in Central Java, an existing Indonesian paper mill began planning to build a similar facility in Sumatra, Indonesia. As in the earlier case with Aceh, the domestic and export market prospects do not justify building two mills with the same product mix. The Bank thus decided and advised GOI not to pursue further with the KKC project.

vi. The Engineering loan disbursement was much slower than forecasted due to the unexpected changes mentioned above, aside from reasons associated with GOI's disbursement procedures. In fact, the loan was not fully utilized, with a balance of US\$4.03 million finally cancelled on October 1, 1986, at Bank's recommendation and GOI's request.

PROJECT COMPLETION REPORT

INDONESIA - CENTRAL JAVA PULP AND PAPER ENGINEERING PROJECT

(LOAN NO. 2199-INS)

I. INTRODUCTION

1.01 Indonesia has the largest forest resource in Asia and the forest industry sector is particularly important because of its enormous potential. It is a relatively labor intensive industry especially if one considers upstream and downstream linkage effects. There are 30 paper companies operating in Indonesia, five of which are public sector companies. Nineteen of these mills have no pulp production capacity and use primarily imported pulp. Thus more than half of the paper produced domestically is based on imported pulp. Overall 75% of the fiber in paper consumed in Indonesia is imported, compared with 10% in Bangladesh, 30% in India and Korea, and 40% in the Philippines. A major reason for the lack of backward integration was the existing tariff structure which provided a high level of protection for paper products and none for pulp. In addition to being non-integrated, the majority of the existing paper mills also suffered from serious inefficiencies resulting from their small size and over-diversified product mix. During the early 1980s, all the existing mills were experiencing great financial difficulties due to excess capacity problems and wide fluctuations in the pulp and paper prices in the world market.

1.02 The Indonesian forest industries (pulp and paper and mechanical wood processing) were among those examined by the Bank in the course of its industrial survey during 1976. Subsequently, in 1982/83, the Bank undertook a review of the pulp and paper industry which called for a rational long-term development strategy to be based on a sector-wide restructuring program consisting of rationalization of the existing mills and investments in viable large scale, integrated pulp and paper production lines. In both these analyses, the Central Java Project was identified as one of the potentially viable projects which fits the long-term development strategy of the pulp/paper sector that would help Indonesia exploit its natural resources.

II. PROJECT BACKGROUND

A. Project Preparation, Approval and Effectiveness

2.01 The Central Java Pulp and Paper Project was conceived by the Government of Indonesia (GOI) as a way of utilizing its long fiber resources in Central Java. The plantation belongs to Perum Perhutani, the State forestry corporation which manages all the forest resources in Java, and which has developed the Central Java area into one of the best long fiber plantations in Indonesia. Perum Perhutani commissioned a Finnish consultant to carry out prefeasibility studies. These studies, completed in 1981, indicated the viability of a large scale integrated pulp and paper

mill to produce 106,000 tpy of sack kraft due to the expected rapid expansion of cement sack demand and to be located in the Cilacap area. The sack kraft to be produced for the first time in Indonesia was to be marketed domestically to cement companies, and to a lesser extent, to fertilizer and other commodity producers.

2.02 The Bank reviewed the prefeasibility studies in May 1981, and reappraised the Central Java Project in February/March 1982. Since the country had little previous experience in such large scale integrated mill, considerable need for technical assistance, during preparation, implementation and operation, was identified. As such preparation work would require foreign exchange and take some time to be carried out, the Bank recommended that an engineering loan would be an appropriate way to finance such expenditures through the basic engineering and tendering phases. The loan was made to GOI, and was to be the vehicle for continued Bank sector dialogue, specifically regarding the existing paper companies, with the goal of bringing about the policy and structural changes necessary to ensure a rational development of the sector as a whole.

2.03 Negotiations were held in Jakarta from July 29-31, 1982. Since this is an engineering project, no separate appraisal report was prepared. The loan was considered by the Board on September 11, 1982, and became effective on May 2, 1983, after the conditions of effectiveness were satisfactorily met, namely, establishment and incorporation of a company (P.T. Kertas Kraft Cilacap - referred to as KKC) to implement and operate the Central Java Pulp and Paper Project (hereafter referred to as the Project), and the appointment of engineering consultants and technical advisors to carry out related services and studies essential to the implementation of the Project.

B. Project Description and Objective

2.04 The Project consisted of four components:

- (a) technical assistance to the KKC staff in carrying out basic engineering, evaluation of environmental impact, preliminary civil engineering and procurement assistance for a sack kraft mill;
- (b) technical assistance to Perum Perhutani in developing wood supply arrangements including logging re-plantation and transportation program, road design and environment conservation measures;
- (c) a training program for KKC in plant engineering and operation and other aspects related to an integrated sack kraft paper mill; and
- (d) a restructuring study for the existing pulp/paper mills to identify business strategies, policy measures and restructuring actions (including closure, merging of non-viable facilities).

2.05 The two key objectives of the Project were to:

- (a) prepare for the Central Java Pulp and Paper mill, namely to confirm its technical, financial and economic viability, and work out all the necessary implementation details, including the development of a financing plan which involves maximum co-financing and mobilization of non-Government resources and the development of the wood supply arrangements; and
- (b) develop a program for subsector restructuring (including policy reforms and mill-specific actions) to re-orient the sector towards its rational long-term development objectives.

2.06 Following standard Bank procedures for selection of consultants, a Japanese company, hereafter referred to as the KKC Technical Advisor, was appointed for components (a) and (c). It is one of the largest pulp and paper companies in the world which has an extensive overseas experience in technical assistance and engineering services, and has substantial kraft paper production capacity. Because of its extensive experience with steep slope logging and its previous involvement in a Japanese forestry training program for Indonesia, the same company was initially also selected to provide technical assistance to Perum Perhutani (component (b)).

2.07 The Central Java Project would have utilized pines from Perum Perhutani's concession of about 100,000 ha located in Central Java, out of which approximately 52,000 ha is under plantation. Based on the estimated raw material supply, the mill capacity would have been 90,000 tpy of sack kraft in the beginning, then expanded to 106,000 tpy six years after startup. The mill would be located in Cilacap, a town of approximately 100,000 in population on the southern coast of Central Java. It is well located in regard to infrastructure services and the wood supply as well as product market, with a deep sea port, road and railway connections to the rest of Java. The project technology to produce this grade of pulp and paper is well established in the world. Expected to create 700 full-time jobs in the mill, 2,000 full-time and 8,000 part-time jobs at the plantation area, the Central Java Project would have been the first large-scale pulp mill in Indonesia.

2.08 The wood supply was to be based on a long-term contract between Perhutani and the new company (KKC). The feasibility study and subsequent review by a Bank forester confirmed that the designated wood supply area was adequate to meet the wood requirements of the Project. GOI negotiated for the wood supply technical assistance with the [same Japanese] Technical Advisor to KKC, hereafter called Japanese consultant, on grounds of previous experiences in steep slope wood harvesting and training of Indonesians for such conditions under Japanese bilateral program. The contract was signed on February 8, 1983. Staff of both Perhutani and KKC were to be trained on the job, working closely with the Japanese Consultant's personnel.

2.09 In agreement with the broad conclusions of the Bank's pulp and paper sector review (para 1.02), GOI commissioned a restructuring study, also financed as part of the Engineering Project. This study, was to (i) formulate detailed mill restructuring plan/actions and policy reforms as needed for the long-term efficient development of the sector; and (ii) review alternative fiber supplies and market prospects for Indonesian pulp and paper. A Finnish consulting group with considerable wood and pulp/paper working experience was selected for this study and the contract was signed in December 1983.

III. PROJECT IMPLEMENTATION AND MANAGEMENT

A. Achievement of Project Objectives

3.01 The first basic objective concerning KKC was not fully achieved during project implementation as the original preparatory work was suspended in early 1985 (some 20 months after effectiveness) when GOI succeeded in reviving an old project idea of a sack kraft mill in Aceh, Sumatra, with the financial help of Japanese equipment suppliers. Although GOI intended for the future Aceh mill to export its output, the Bank was seriously concerned with the market prospects (both domestic and export) for two sack kraft mills in Indonesia. As GOI disagreed with Bank views, the KKC Technical Advisor was therefore commissioned to conduct a market study for sack kraft. The study confirmed that there was insufficient market for two sack kraft mills in Indonesia, and GOI requested the Bank to reconsider the KKC project as a mill for long-fiber bleached kraft pulp which has been heretofore imported by domestic paper makers. The KKC Technical Advisor was asked therefore to do a feasibility study of KKC as a market pulp mill. Based on this study (available in July 1985), the Bank reappraised the new project proposal, and found that it was financially and economically justified. As the Bank and GOI were discussing the financing plan, in particular the need for private equity partner in KKC (para 3.02), it was learnt by the beginning of 1986 that another long-fiber pulp mill was being planned by private investors in Lake Toba, Sumatra. While GOI and the investors maintained that the output of this Lake Toba mill is for textile uses and not paper making, the Bank's assessment was that there would not be sufficient market for two long-fiber market pulp mills in the country. The Bank advised GOI of its intention to withdraw from the KKC project, a decision which was strengthened subsequently, by the beginning of 1986, when Government resources for public investment such as KKC were becoming scarce due to declining oil revenues. The status of work achieved under the engineering loan by the time the Bank decided not to pursue with the KKC project is briefly summarized in the next paragraphs.

3.02 The technical preparation covering basic engineering and tender/procurement assistance had advanced to the point of readiness to initiate procurement for the construction project. The preliminary civil engineering, project management/legal assistance and training were not started due to changes in the project scope. The KKC financing plan was an important issue which needed to be worked out during implementation of the

engineering loan. The Bank helped GOI analyze the different project financing alternatives, in particular with regard to equity provision. In advising GOI to reduce its equity share in the mill to a minimum, Bank staff have explored the possibility of converting export credit to equity, issuing convertible bonds, using a portion of the proposed Bank loan for equity financing, and promoting an equity participatio. from IFC and domestic paper companies. This last alternative would preserve a meaningful management role for the private partner(s) and allow them eventually to expand their mill equity share. GOI and Bank staff have thus identified several domestic paper mills with growth potential who would have participated in the mill equity (albeit a small share at the beginning) and who would be able to assume a significant role in the mill operations.

3.03 The negotiations of the contract for the wood supply technical assistance with the Japanese consultant was seriously delayed because the consultant did not accept GOI's request to increase the local contract participation to 50% unless the total contract price was increased to allow sufficient supervision for work quality. This tendering process was suspended subsequently to await the outcome of the new KKC feasibility study.

3.04 The pulp and paper restructuring report was satisfactorily completed and reviewed by the Bank in November 1984 and its strategic recommendations accepted by the Directorate General of the Basic Chemical Industries (DGBCI). Some positive steps taken by GOI towards policy improvement were the increase in energy prices by about 100%, reduction in maximum tariff duties on paper (from 60% to 30%), and setting the duty for pulp at 5%. The Bank proposed to design a financial and technical assistance program to support the implementation of the restructuring action programs recommended in the report for all the existing potentially viable paper mills. As the DGBCI indicated that it would be interested in Bank support for the sector as a whole, including the KKC market pulp mill, no further Bank follow-up discussion was carried out.

B. Project Management

3.05 The primary executing agency of the Engineering Project is originally the Project Management Team within KKC. The Project Management Team is staffed with experienced personnel from Perum Kertas Basuki Rachmat, one of the five public sector paper mills in Indonesia which operates a small well managed integrated wood based pulp and paper mill in East Java. Most of this technical staff have received specialized overseas training in pulp and paper technology. While the KKC staff capabilities have strengthened during the Engineering Project implementation, these needed to be complemented with private experienced operator(s) to ensure full commercial viability for the mill operations. On the wood supply side, the Perhutani personnel have received training overseas but still needed considerable field practice and training to ensure an efficient and effective wood supply to KKC.

3.06 The Industrial Restructuring Study was executed by DGBCI. The DGBCI staff have worked closely with the consultant on the development of a long-term strategy for the sector, including appropriate policy measures and restructuring actions (see also para 3.12).

C. Training

3.07 The training components included in the Engineering Project required prior to the startup of the KKC Project were (i) for KKC - in plant engineering, mill management and other field related to the pulp and paper industry, and (ii) for Perum Perhutani - in wood harvesting (e.g., cable logging techniques) and other related wood supply operations. Both were not carried out and no expenditure was made against them since no follow-up was expected for the construction project.

D. Use of Consultants

3.08 Consultancy services were retained for each of the components of the Engineering project, namely: mill engineering, market study and restructuring study, and subsequently the revised feasibility study for the new project scope. GOI and the Bank were satisfied with the performance of the Japanese consultant (KKC Technical Advisor) for mill engineering as well as for the feasibility study. Their technical/operational expertise, extensive presence in the Asian paper market, and knowledge of the Cilacap mill's technical features allowed some time saving in the finalization of the contractual arrangements, and resulted in work satisfactorily reviewed by both GOI and the Bank.

3.09 The Restructuring Study was conducted by the same Finnish consultant who undertook the prefeasibility and feasibility studies for Central Java Pulp and Paper Project. As required in its TOR, the Consultant satisfactorily completed its restructuring study which focussed mainly on the improvement (through case studies) of a number of existing paper mills with high potential viability, the possible desirable policy changes, and their impact on the overall development of the Indonesian pulp and paper sector. The performance of all consultants was generally satisfactory.

E. Implementation Schedule

3.10 The major part of the Engineering Project implementation schedule covers the appointment of consultants for technical assistance and studies. The TOR for Technical Advisor for mill engineering was reviewed and approved by the Bank, and the contract signed as expected in February 1983. The TOR for the agreed feasibility study and new market study for the revised project scope, carried out by the KKC Technical Advisor as an amendment under the original contract with KKC, was approved in October 1984. The study was completed and the report was reviewed and discussed by the Bank with GOI in June 1985, as expected.

3.11 The Technical Assistance for wood supply arrangement was not an immediate item on the critical path and was only to become necessary in Spring 1983. It was therefore agreed that employment of the forestry consultant was to be a dated covenant to be satisfied by February 1, 1983. Implementation of this component was seriously delayed due to issues regarding the role of foreign and domestic consultants in the contract (essentially to identify the local experts, the nature and magnitude of their participation, the estimated cost associated with their real contribution and needed training). Subsequently, the selection process was suspended pending resolution of major issues related to the KKC mill project, and finally cancelled with the cancellation of the Bank loan.

3.12 Selection of the consultant to undertake the Restructuring Study, which was to be completed in December 1982, was later revised to April 1983 and September 1983. Proposals were received by end February 1983 from five consultants and was contracted for in December 1983 with the Finnish consultant. The report was completed on time and reviewed in November 1984 by GOI and the Bank.

3.13 The Engineering loan was extended twice from its original closing date of September 30, 1984, first to allow examination of the new product mix proposed for KKC, and second, as the decision on KKC mill was still pending, to provide time for implementation of the technical assistance to Perhutani. The loan was finally closed on September 30, 1986.

F. Project Cost and Disbursement

3.14 The total financing requirement of the Engineering Project was estimated at US\$7.8 million during appraisal, of which US\$5.5 million was in foreign exchange, including front end fee. A major part of the loan covers the services of technical consultants. All consulting services were estimated to be about 280 man-months at an estimated total cost of US\$3.9 million. In addition to personnel costs (salary, fees, travel, subsistence), these contract costs covered local transportation, local office operating expenses and other minor items. About US\$500,000 was used for retroactive financing of the down payment for the Technical Assistance contract for KKC mill engineering which became effective prior to the loan signing. Disbursements for consulting services were made against 100% of foreign expenditures.

3.15 The only goods proposed for financing under the Engineering loan were for office and other equipment to facilitate the Project Management Team's establishment and operations during project implementation (US\$200,000), and for proprietary spare parts for forestry equipment to be used by Perhutani in training (US\$50,000). No expenditures were made in these categories.

3.16 The Bank loan of US\$5.5 million was lent at the standard variable rate of 20 years, including a grace period of five years.

3.17 The comparison of proposed detailed cost of the Engineering Project and the corresponding disbursement position are shown below:

	<u>Est. Project Cost</u>			<u>Loan Alloc.</u>	<u>Actual Disb.</u>
	<u>Local</u>	<u>For- eign</u>	<u>Total</u>		
Basic Engineering	0.21	0.48	0.69		
Procurement Assistance	0.50	1.15	1.65		
Prelim. Civil Engg	0.26	0.67	0.93		
Proj. Mgt. & Legal Asst.	0.15	0.69	0.84		
	<u>0.12</u>	<u>2.99</u>	<u>4.11</u>	3.50	1.13
Office & Misc. Equpt	0.10	0.20	0.30	0.20	-
Study-Wood Supply	0.29	0.45	0.74	0.05	-
Training - KKC/PP	0.20	0.40	0.60	0.80	-
Restructuring Study	0.12	0.25	0.37	0.30	0.26
Base Cost	1.83	4.29	6.12	4.85	1.39
Physical Contingencies	0.25	0.63	0.88		
Price Contingencies	0.22	0.50	0.72		
Project Cost	2.30	5.42	7.72		
Front-end fee on Bank Loan Unallocated		0.08	0.08	0.08	0.08
				0.57	-
Total Financing	2.30	5.50	7.80	5.50	1.47
Undisbursed Balance - Cancelled					(4.03)

3.18 The slow disbursement in the Bank loan was primarily due to GOI's procurement and disbursement procedures, especially delays in their contract negotiations and in their processing and submission of disbursement requests. The unutilized balance of US\$4.031 million was cancelled on October 1, 1986.

IV. BANK PERFORMANCE

4.01 Given the obvious needs for restructuring the existing pulp and paper industry and lack of a well-conceived sector-wide plan for its future development, the Bank played an important role in assisting GOI towards their solution through the preparatory work for the KKC project as well as through the sector study and its review process.

4.02 The Bank had spent 32.4 staffweeks on supervising this project. A lot of this Bank input was necessitated by the fundamental changes in project scope (para 3.01). In fact, in supervising the project, Bank staff have de facto carried out an appraisal of the KKC mill under alternative product mix and market scenarios. Bank staff were also heavily involved in

the design of the mill financing plan, including the search for possible private partner for the project. In the context of reviewing the subsector study, Bank staff have also invested considerable time on strategy and policy advice to relevant GOI officials.

4.03 More specifically, in addition to standard Bank review and approval process for TORs, draft tender documents and contracts, Bank staff also had extensive discussions with GOI, KKC and their Technical Advisor, as well as potential private partners on the procurement arrangements to be adopted. Guidance was provided to GOI staff on ways to handle the financing issues in the tendering process, including review of the prequalification evaluation prepared by the Technical Advisor. On the wood supply program, the Bank forester evaluated and confirmed the wood supply requirements of the KKC project and subsequent to GOI's decision to retender the consultancy services, the Bank reviewed the tender documents, and lists of international consultants.

4.04 With regard to the pulp and paper sector as a whole, the Bank was able to reach an agreement in principle with GOI on a long-term strategy, although it was not able to follow up with a financing and technical assistance program to help implement the needed sector restructuring due to insufficient GOI interest at that time. Nevertheless, the Bank was instrumental in focussing GOI's attention regarding the long-term subsector development strategy, as a result of which some needed policy reforms were implemented. With regard to the KKC project, in spite of the final decision not to go ahead with the construction project, the Bank succeeded in ensuring that:

- (a) the market prospects for KKC, including possible competition from ongoing and planned investments, were assessed carefully and realistically; and
- (b) GOI re-examined its public ownership and management role in the proposed KKC mill.

4.05 The Bank's missions through its preappraisal work have had the direct effects of training and sensitizing KKC and relevant GOI staff to the economic viability issues, underlying investment evaluation and different rational project preparation approaches such as procurement packaging and financing issues. With respect to these last issues, Bank staff also played an active role in helping GOI explore interests of possible private partners for KKC, and succeeded in convincing GOI authorities of the feasibility and desirability of such approach. Although the Bank withdrew from financing KKC due to issues related to market and public investment priority, it seems that GOI has retained the Bank's proposed approach for private participation in KKC and is continuing with the negotiations started earlier with prospective private equity partners.

4.06 By working closely with the Bank and consultants financed with Bank loan on such major issues as market prospects, mill design and sector strategy during the implementation of the Engineering Project, staff

from GOI and particularly from KKC have gained significant experience and training which would be useful in addressing future similar problems in the long-term development of the sector. Likewise, the local consultant associated with the Finnish consultant for the restructuring study has acquired some experience in sectoral analysis.

V. LESSONS LEARNED

5.01 In hindsight, given the Indonesian environment, the Bank may have made the right decision to adopt a two-phased approach (engineering/preparation prior to construction) for such a large and complex project as the Central Java Pulp and Paper mill. In effect, although it was time-consuming, the engineering/preparation phase seems to have allowed a more prudent and careful examination of the many issues surrounding the KKC mill proposal, particularly the question of market availability and its evolution in function of the unfolding implementation decisions for possible competing investment projects (e.g., Aceh), and of GOI's ownership role in the KKC mill.