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Distr.
RESTRICTED

ID/WG.5/14
September 1967

ORIGINAL: ENGLISH

United Nations Industrial Development Organization

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Workshop on Financial Planning of Industrial Projects

Karachi, Pakistan

5 - 30 August 1968

Document number

COMMERCIAL BANK LENDING
A CASE STUDY

COOPERATIVE GRAIN GROWERS, INC.
PROPOSED FINANCING
FOR THE CONSTRUCTION OF A
GRAIN SORGHUM WET MILLING PLANT

by

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The opinions expressed in this paper are those of the author and do not necessarily reflect the views of the United Nations Industrial Development Organization.

67-21045

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

I INTRODUCTION[1]

The case study which follows involves the construction of a plant to process grain sorghum into starch, dextrose, and animal-feedby-products. To make this presentation feasible, hundreds of pages of scientific, technical, marketing, management, and legal studies have been omitted. Supporting financial schedules have been eliminated, and the principal financial figures have been summarized and simplified. Likewise, detail d sales projections and financial forecasts have been omitted. The texts of proposed contracts between the parties involved run to almost 100 pages, and these have been eliminated, as have the corporate charter and by-laws.

Although this omitted information would demonstrate the high degree of expert study which was put into the project, we will take all this for granted and present only the material that bears most directly on the bank's credit decision.

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[1] This paper is largely the result of the patient assistance of Messrs. Frederic B. Bergendorf and William C. Pierce, both of the Chemical Bank New York Trust Company, neither of whom, however, are responsible for any errors of fact or opinion contained in these pages.

II SUMMARY OF BACKGROUND INFORMATION

Cooperative Grain Growers, Inc. was formed in [illegible] farmers in and around Heartland, Nebraska.[2] The 500 farmers [illegible] numbers of shares of common and preferred stock in the company. [illegible] of Directors is composed of five of the farmer-owners elected [illegible] owners. In addition to the President, who is one of the Directors, the salaried staff consists of a professional manager, a professional accountant, and a small management, clerical, and maintanance staff, totalling about eight people in all. The cooperative owns four grain elevators and storage equipment valued at $4,500,000 in Heartland.

The owners formed the company to buy, store, and market their grains. The company is kept up to date on projected harvests and market demand. When the market is strong, the company also purchases grains from non-owner farmers in the area. In recent years, however, supply has chronically exceeded demand.

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[2] Agricultural cooperatives have a long and interesting history in the United States. They are owned by the community or group that they serve, but on an individually voluntary basis. Those who wish to participate purchase shares of stock. Cooperatives have been formed to run gas stations, food freezers, hardware stores, and other services important to the farming community.

The particular type of cooperative that we are concerned with here is an incorporated marketing cooperative which proposes to process, as well as collect and sell, the produce of its owners. Such cooperatives are not conducted for corporate profit. Produce is purchased from farmers, both owners and non-participants, at fixed prices. At the end of the year, earnings are distributed according to a formula which includes (1) a dividend to the owners based on the numberof shares held, and (2) a "patronage" payout apportioned among all user-farmers according to how heavily they patronized or used the cooperative's facilities. Owner-farmers' patronage is computed at a higher rate than that of non-owners.

Because of their special history and nature, such cooperatives are given special treatment in American law. They are exempted from certain provisions of anti-trust legislations. Laws regulate the payment of dividends and patronage. Most important, cooperatives are given significant exemptions from corporate taxes.

III. [illegible]

In an attempt to alleviate the continued over-supply of grain sorghum, [illegible] ordinary cash crop of the owners, the corporation proposes to construct a sorghum wet milling plant which is expected to product starch and dextrose of a quality similar to that produced from corn. There is only one other company in the country which has such a sorghum milling plant, the Grain Refiners, Inc. plant in Dallas, Texas.

The company plans to sign an agreement with a large processor and wholesaler of dextrose and starches, the American Grain Products Corp. American Grain is to agree to furnish technical assistance in the construction of the plant, to supply management personnel to run the plant, and to agree to purchase of the output whatever amounts they feel they can sell under their brand label. American Grain will receive fees for its technical and management services, and 25% of the profits of the company for ten years.

The project involves the following costs which will be incurred over a 24 month period (000's Omitted):

Land	$ 300
Engineering Costs	1,000
Engineering Fee	500
Buildings	2,800
Machinery and Installation	8,090
Initial Working Capital	810
	$13,500

The company proposes to obtain the $13,500,000 as follows (000's Omitted):

New Capital Paid in by Owners	$ 500
Agricultural Bank for Cooperatives	8,000
Commercial Bank Term Loan	2,000
Commercial Bank "Equity" Term Loan	3,000
	$13,500

The 500 Farmers are each to raise $1,000 in exchange for shares of preferred stock (which would be pledged to the bank).

[illegible] million from the Agricultural Bank [illegible] secured by a first mortgage on both the new plant and [illegible] elevators and storage facilities. These funds would [illegible] taken down and the first to be repaid.

The cooperative is proposing that the commercial bank [illegible] part $[illegible],000 loan: (1) A $2,000,000 term loan secured on (a) a [illegible] mortgage on the existing and proposed properties of Cooperative [illegible], Inc., (b) the pledge of American Grain Products Corp.'s management and marketing fees up to $1,000,000 per year, and the deferral of their 2[illegible] profits from the new plant until the loan is repaid; (2) an equity loan of $3,000,000 to be secured by (a) all the existing and new stock in the cooperative, (b) marketing contracts between individual farmers and the cooperative providing for a retainage of $0.25 per cwt.,[4] and (c) promissory notes from the individual farmers totalling $3,000,000.

In support of their request, the cooperative offers the following statements and data:[5]

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[3] This is one of the semi-governmental banks similar to the agricultural development banks in other countries. These banks supply the long-term credit requirements of agricultural cooperatives, which credit must, by law, be secured by unencumbered first mortgages on plant.

[4] I.e. in the event of default, the bank would be entitled to receive $0.2[illegible] for each 100 pounds of grain sorghum received under contract from the farmers by the cooperative.

[5] At the same time a full audit report by an independent public accounting firm was submitted. The auditors expressed an "unqualified" opinion.

COOPERATIVE GRAIN GROWERS INC.
HEARTLAND, NEBRASKA

TWO YEARS COMPARATIVE BALANCE SHEETS
(Abbreviated, 000's Omitted)
YEARS ENDED May 31,

	1966	1965
Current Assets*	463	397
Fixed Assets	1,508	1,554
Other Assets	719	606
Total Assets	2,690	2,557
Current Liabilities	192	482
Term Liabilities	345	175
Owners' Equities	2,153	1,900
Total Liabilities and Capital	2,690	2,557

*		
Cash	47	N.A.
Receivables-Net	166	
Storage & Handling Receivable	37	
Inventories	201	
Prepaid Insurance	12	
	463	

COOPERATIVE GRAIN GROWERS, INC.
HEARTLAND, NEBRASKA

FIVE YEARS' COMPARATIVE INCOME STATEMENTS
(ABBREVIATED: 000's Omitted)
FISCAL YEARS ENDED MAY 31,

	1966	1965	1964	1963	1962
Sales	3,539	3,376	2,818	1,605	2,840
Cost of Goods Sold	3,267	3,155	2,605	1,450	2,685
Gross Margin	272	221	213	155	151
Handling & Storage Revenue	500	383	713	787	686
Total Revenues	772	604	926	942	840
Operating Expenses	546	512	540	578	468
Net Operating Margin	226	92	387	364	373
Other Revenue	89	141	122	88	43
Other Expense	36	44	39	48	36
Net Income[6]	280	188	469	404	380
Dividends	---	82	77	70	61
Special Items			188		
Increase in Retained Earnings	280	106	275	334	319

[6] The Cooperative pays no taxes. C.f. fn. 2, p. 2, para. 3.

PROJECT REPORT
COOPERATIVE GRAIN GROWERS SORGHUM WET MILLING PLANT

Projected Operating Results

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Bushels Grind	772,667	2,425,995	3,589,181	4,583,544	5,174,632	5,587,819	5,769,555	5,938,30[illegible]	6,111,043	6,293,813
Prime Products Coml. Volumes:										
Dextrose -Cwt.	210,011	444,379	572,660	669,096	801,496	899,219	920,256	939,726	960,762	978,665
-C/L's	350	741	954	1,115	1,336	1,499	1,534	1,566	1,601	1,631
Dry Starch-Cwt.	36,000	360,000	630,000	876,000	936,000	972,000	1,009,800	1,051,200	1,0[illegible]9,000	1,134,000
-C/L's	60	600	1,050	1,460	1,560	1,620	1,683	1,752	1,815	1,890
Avail. for Ovrhd. & Profit	848,365	2,478,081	3,562,091	4,399,142	5,025,215	5,521,272	5,619,780	5,770,547	5,949,017	6,084,350
Less: Plant Overhead	908,412	1,852,375	1,919,872	2,129,324	2,162,970	2,040,887	2,069,838	2,099,629	2,128,580	2,159,212
Start-Up Exp.	84,359	-	-	-	-	-	-	-	-	-
Gross Profit	(144,406)	625,706	1,642,219	2,269,818	2,862,245	3,480,385	3,549,942	3,670,918	3,820,437	3,925,13[illegible]
Less: Mktg. & Mgt. Fees	154,533	485,199	717,836	916,709	1,034,926	1,117,564	1,152,111	1,187,662	1,222,209	1,2[illegible],765
Plant Selling Profit	(298,939)	140,507	924,383	1,353,109	1,827,319	2,362,821	2,397,831	2,483,256	2,598,228	2,[illegible]6,375
Less: Interest Exp.*	420,000	420,000	420,000	385,000	315,000	301,000	280,000	259,000	193,000	[illegible]3,[illegible]
Avail for Profit-Sharing	(718,939)	(279,493)	504,383	968,018	1,512,319	2,061,821	2,117,831	2,224,256	2,405,22[illegible]	2,613,375
Profit-Sharing to American Grain(25%)	-	-	126,096	242,005	378,080	515,455	529,458	556,065	601,307	653,344
Avail. to Cooperative for Profit & Int.	(718,939)	(279,493)	378,287	726,014	1,134,239	1,546,366	1,588,373	1,6[illegible],191	1,[illegible]9[illegible],[illegible]21	1,[illegible],[illegible]21
Net Add'l. Int. Exp.	350,000	350,000	350,000	350,000	350,000	277,000	193,000	74,000	-	-
Profit Before Tax to Patrons**	(1,068,939)	(629,493)	28,287	376,014	784,239	1,269,366	1,395,373	1,594,191	1,[illegible]03,[illegible]21	1,[illegible],[illegible]21

* On a maximum of 40% of Net Working Capital and Net Fixed Assets.
** Does not include premium on grain sorghum to patrons.

COOPERATIVE GRAIN GROWERS SORGHUM WET MILLING PLANT

Projected Assets and Liabilities
Based on Projected Operating Results
(000's Omitted)

(In Thousands)	Initial	1968	1969	1970	1971	1972	1973	1974	1975	[illegible]	[illegible]
Cash - Year end April 30	1,450	718	748	468	272	278	274	274	281	349	[illegible]
Receivables (5-day coll.)		61	87	127	159	183	202	209	216	[illegible]	[illegible]
Inventories (12 times turn)*		205	306	442	558	633	692	716	737	[illegible]	[illegible]
Prepaids	—	20	35	50	60	70	80	85	85	85	[illegible]
Total Current Assets	1,450	1,004	1,176	1,087	1,049	1,164	1,248	1,284	1,319	1,415	[illegible]
Current Payables & Accruals (15 days)	—	232	250	350	403	451	483	491	[illegible]	508	[illegible]
Net Working Capital	1,450	772	926	737	646	713	765	793	[illegible]	[illegible]	[illegible]
Fixed Assets-Net of Depr.	13,550**	13,159	12,376	11,593	10,810	10,027	9,244	8,461	7,678	[illegible]	[illegible]
Net Assets	15,000	13,931	13,302	12,330	11,456	10,740	10,009	9,254	[illegible]	[illegible]	[illegible]
Debt (Interest @ 7%)	11,000	11,000	11,000	10,500	9,500	8,250	6,750	4,750	[illegible]	[illegible]	
Patrons' Equity	4,000	2,931	2,302	1,830	1,956	2,490	[illegible]	4,504	6,748	[illegible]	[illegible]
Distribution to Patrons:											
Year	-	-	-	500	250	250	500	[illegible]	[illegible]		
Cumulative	-	-	-	500	750	1,000	[illegible]	[illegible]	[illegible]		
Premium on Grain Sorghum to Patrons:											
Year	-	65	204	301	385	434	[illegible]	[illegible]			
Cumulative	-	65	269	570	955	1,389	[illegible]	[illegible]	[illegible]	[illegible]	
Profit B/4 Tax for Patrons:											
Year	-	(1,069)	(629)	28	376	[illegible]	[illegible]	[illegible]	[illegible]		
Cumulative	-	(1,069)	[illegible]	(1,670)	(1,294)	[illegible]	[illegible]	[illegible]	[illegible]		

*Assumes hand-to-mouth purchase of grain sorghum.
**Includes $1,068,140 contingency.

II. EVALUATION

In evaluating this proposal, the commercial bank noted the following:

(1) The bank was reasonably confident that the cost and technical estimates, having been prepared by a competent and reputable engineering firm, were accurate.

(2) There was no problem in insuring sufficient raw materials for input for the plant, since the farmers were tied to the cooperative, and since there was a chronic over-supply of sorghum.

(3) The bank felt that the major non-financial problem was the marketability of the output of starch and dextrose due to (a) its very limited production in the past and (b) its untested ability to compete with corn-derived products which had gained wide acceptance. The bank was concerned that it might take some time to develop consumer acceptance and demand for these products, and hence that sale projections might be overly optimistic. Since the cooperative had no firm marketing agreements or contracts which would guarantee the sale of output,[7] the bank felt that marketing might be a major risk in the project. American Grain Products Corp. had not commited itself to take a fixed amount of output, but only "what it felt it could sell." In view of the profits American Grain stood to make on the plant,[8] the bank felt that the company should have been willing to accept an expanded role, especially in regard to marketing.

(4) The second major area of risk lies in the proposed financing program:

A.$2,000,000 Term Loan: The second mortgage would probably have no

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[7] Such as a "take or pay" contract from American Grain Products Corp. Cf. Author, Credit Evaluation by Commercial Banks of Industrial Financing Proposals, p. 7

[8] Cf. p.7, above, esp. 'Profit Sharing to American Grain' and 'Less Mktg. & Mgt. Fees," both of which are payable to American Grain. In addition, American Grain would probably have a markup on the produce sold under its own label.

value in liquidation because (i) a forced sale would bring a low price and (ii) funds from the forced sale would probably all go to satisfy the first mortgage held by the Agricultural Bank for Cooperatives. The plant's principal value is as a going concern, and therefore a second mortgage is of only conjectural value.

The value of having American Grain's fees and profits deferred is dependent on the assumption that the profit projections will be realized. This in turn depends on the successful marketing of output, as discussed above. If, as the bank feared might happen, problems developed in marketing, these "secondary" supports of the loan would be of little value.

B $3,000,000 "Equity" Term Loan: The bank felt that the former-owners were not putting up a high enough proportion of the funds, since $3,000,000 of the $ 3,500,000 was to be borrowed. The bank would normally like to see a one to one debt to equity ratio.

In any case, the bank felt that this $3,000,000 loan was also inadequately secured. The value of the stock which was to be pledged to the bank depended on the marketing and earnings success of the venture. In any case, it would be virtually worthless in liquidation or default.

The promissory notes from the 500 individual farmers are of little value to the bank because it would not be politically possible for a large out-of-town bank to try to collect on these notes if trouble developed. American juries are notoriously susceptible to the plight of the small independent farmer who is being "dunned" by the wealthy out-of-town bank, regardless of the realities of the situation. In addition, the administrative expenses and problems of looking for payment to 500 individuals living in a distant part of the country make these notes of very limited value.

In summary, the only practical source the bank can look to for repayment is earnings, and earnings are dependent on the marketing of an unproven product produced by a cooperative new to this kind of business. Should these earnings be lower than expected, the bank would have no recourse to any other dependable source of repayment. And there is too much uncertainty about these projected earnings for the bank to make the loans as proposed.

V THE BANK'S PROPOSALS

The bank finally offered three acceptable alternatives to Cooperative Grain Growers, Inc. upon the basis of which it would be willing to proceed.

(1) American Grain Products Corp. would guarantee the entire bank debt of $5,000,000.

(2) If American Grain were unwilling to guarantee the entire $5,000,000, they could guarantee the regular term loan portion of $2,000,000. The $3,000,000 in equity funds could then be raised by having the farmer-owners borrow individually or collectively from local Nebraska banks which might be more willing to depend on them for payment than an out-of-state bank.

(3) American Grain Products Corp. could guarantee to purchase a fixed amount or percentage of the plant's capacity at fixed prices, thereby insuring a level of profitability sufficient to retire the bank debt.

[redacted]

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