FINAL NARRATIVE REPORT

NATIONAL COOPERATIVE DEVELOPMENT CORPORATION

(NCDC)

COOPERATIVE OILSEEDS PROCESSING MANAGEMENT PROJECT

OPG NO. AID 386-2127 (India)

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Cooperative League of the USA

September, 1982

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NCDC Cooperative Oilseed Processing Management

(OPG #AID 386-2127)

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Historical Summary and Background

As will be the case throughout this report, the base detail document is the "End of Project Evaluation" report, dated April 2, 1982, written by Thomas R. Carter, Evaluation Team Leader. This report will contain comments on that report and additions to it that the writer feels necessary for clarification and presenting his viewpoint.

For clarification, it should be noted that the project was really a continuation of a collaboration of NCDC and CLUSA in this area over many years beginning in the early 1960's. During the period 1965 through 1970 an AID-funded CLUSA Advisor to NCDC introduced the concept of modern processing techniques and the first eight units were initiated. After a two-year hiatus during the early years of the "tilt" a CLUSA Representative was assigned to India who acted as an advisor to NCDC in this area on a part-time basis. Beginning in 1973 he became familiar with the existing units and their operations as well as participating in the formulation, implementation and early operations of the approximately 20 additional units initiated prior to the beginning of this project. A portion of this time was spent in analyzing the overall deficiencies of the cooperative operations as a whole and up-dating a proposal for

expanded NCDC/CLUSA collaboration which had been approved in principle for funding by USAID back in 1972. The project just ended was a result of this up-dating. In general, the OPG project was intended to provide manpower and resources to research the observed problems in detail and propose solutions.

There is a minor distinction that should be noted between the evaluation report's criterion of project intent and the actual since it is an important one and appears in several places. The OPG project was intended to be only a part of the manpower development component of the NCDC sector development program and not the entire component. A major portion of the component was to be carried out by NCDC (or NACOP)* after completion of the OPG project. The OPG portion covered system development and testing, translation of the results into a form usable for training, and an initial test of the training material. From that point, the actual transfer of the techniques to the units would be carried out without expatriate assistance. Accordingly, several statements in the "Project Summary" section of the evaluation report (on pp. 1 and 2) expand the scope originally intended.

It should be pointed out that the reference to short-term expatriate consultants was inadvertently omitted from the evaluation report. Two were employed for approximately one month each.

*National Association of Cooperative Oilseeds Processors

Progress Toward Objectives

Project Inputs--

Referring to page 9 of the evaluation report, there appears to have been some confusion caused by a change in reporting format during the course of the project. Our records show the following:

INPUT PROPOSED	ACTUAL INPUT	
1. Approx. 53 man months of expatriate consulting plus 6 months Advisory Committee	1. Carl Petersen	36* months
	2. Walter Gibble	19 months
	3. M.C. Verdery	1 month
	4. J.C. Givens	1 month
	Total	57 months

*Carl Petersen provided approximately 3 months during 1982, 1 month of which was repayment to NCDC for his participation in the OGCP evaluation in 1981.

Advisory Committee--in India	1. Dave Owen	1 month
	2. Ken McQueen	1 month
	3. C.R. Rathbone	1 month
In the U.S.: J.C. Givens, L. Smith, R. Squires, F. Bloomberg, R. Clark, Ralph Olson, K. McQueen, plus others supplying information direct to MRW and long-term advisors:	Estimated	2 months
	Total	5 months

2. U.S. Inservice Training (page 10): 5 man months — Approx. 9 man-months

NOTE: Project proposal indicated additional "in-service" might be substituted for short-term consultancy in India.

3. Counterpart Personnel:

It would appear that the figures given would cover only that time spent directly with the long-term advisors (and these look low) whereas the very nature of their duties at NCDC would indicate they had to spend several times the figures given in activities directly connected with the project as a minimum. No mention is made of Dr. N. Rajagopal, NCDC Staff Oilseed Consultant under this heading so he will be discussed below under "Indian Consultants". In any event, R. D. Bedi's participation (the CLUSA Representative's counterpart) was replaced by that of K.J.S. Bhatia after Bedi's retirement in June of 1979. M.S. Sidhu was officially named Bedi's replacement in October, 1979, but Bhatia continued to participate to a more limited extent than previously. Mr. Sidhu was replaced near the end of the project by S. U. Kapoor. Conservatively, it could be estimated that approximately 6 man months of project-related activity was contributed by the Bedi/Bhatia/Sidhu/Kapoor sequence. Note that Mr. Sidhu wrote a portion of the draft manual. Accordingly, a more realistic estimate of time devoted to project related activities might be on the order of: Shekhawat 7+11=18; Ramanathan 4+2=6; Others 6; Total = 30 man months.

4. CLUSA Representative:

Personal records of the Representative show a total of approximately 9 man months of direct consultative participation in the project (largely in the early and final stages). Purely supervisory activities might account for an additional 2 man months making a total of 11. This is still a long way from the 18 plus originally envisioned (one-half time for 3 years) even taking advantage of the 8 months extension of the duration.

5. Indian Consultants:

As mentioned above, Dr. N. Rajagopal who worked closely with the Representative during the 1973 to 1978 period prior to leaving NCDC on temporary assignment in the GOI Ministry Directorate of Edible Oils was not listed under "Counterpart Personnel". He returned to NCDC early in 1981 as Staff Consultant--Oilseeds (his previous position was taken by Mr. Shekhawat). Conservatively, his project participation as a consultant during 1981 and 1982 could be estimated at 8 man months.

Referring to page 12 of the evaluation report (discussion of expatriate consulting personnel inputs), a little clarification on Dr. Gibble's role is indicated as being required from the comments made. It should be pointed out that neither advisor fit the qualifications we originally had in mind and a detailed definition of tasks ahead of time would have ruled out both advisors and probably resulted in our having none at all since both were a compromise with the original intent. Moreover, the report continues the impression (erroneous) of the interim evaluation that the functions of both were identical. The original concept called for them to work together with one (management) supplying the operating technique inputs and the other supplying the strictly technical process and equipment design inputs. We have discussed earlier how the compromise on this approach was made. It is also felt that it is a little early to judge whether Dr. Gibble's contribution is limited to the blending concept and positive inputs into the uses and preservation of soybean oil (to both the NCDC OPG and the NDDB OGCP). He also prepared the only diversification recommendations and a great many recommentations and details for improved oil processing and quality control as well as marketing. In the event that circumstances permit

NCDC/NACOP personnel (and they are capable of doing so) to take his inputs from the manual and translate them into changes in the units themselves the benefits therefrom could also amount to many times the total OPG cost over the years following.

To enhance the conclusions reached on pp. 14-15 of the evaluation report, where counterpart personnel inputs are discussed, it should be pointed out that a significant portion of the advisors' time in the field was spent in getting familiar with the plants and the personnel, which the counterparts (as well as the Representative) had already accomplished before the advisors arrived in India.

Project Outputs--

Referring to p. 21 of the evaluation report, the last paragraph could be interpreted as indicating the confusion exists as to the break point between the OPG project and the manpower development program itself. Ultimate "diffusion" of the innovations to the units was to occur after the OPG with only the proposed method firmly established (which it is true was only partially done).

Progress Toward Purpose

Referring to page 24 of the evaluation report, the only clarifying comment required is that the system recommendations are really technologically quite simple rather than complex. However, since they are extremely important, and the process of getting them adopted by all units is in itself complex, the emphasis is quite justified and the recommendations, if anything, are too mild.

Progress Toward Goal

The recommendation for a "final" evaluation on page 25 of the evaluation report coincides with that suggested in our original project proposal except for lengthening the period following the EOP. The 3 years suggested is felt to be realistic based on project history.

Special Achievements

The discussion of this area begins on page 26 of the evaluation report.

It should be pointed out that the "innovations" made were steps taken to make operations match good U.S. practice for comparable equipment. This is mentioned only because the philosophy is key to good technology transfer--matching results rather than theory, hardware, or conditions. It should also be pointed out that those achievements cited do not include a relatively large number of minor ones which add up to an additional improvement in economics and reliability.

Unexpected Developments and Benefits

The discussion of this aspect begins on page 43 of the evaluation report. Since it is not mentioned in the evaluation report, it should be pointed out that the magnitude of the operating deficiencies (and hence potential benefit) was unexpected since this could only be established by long-term exposure to operating details in a number of plants.

Soybean processing was included in the project design on a relatively small scale (based only on adding the capability for soybean processing to existing plants to increase their capacity utilization). The size of the project crop at that time indicated no plants specifically for soybeans were warranted. Again, the magnitude (caused by a new GOI program) was

unexpected. In addition to financial benefits, it resulted in the project being even more valuable to the recipients, implementors, and India in general since the U.S. is the world leader in this subject. It should be noted that the GOI emphasis on soybeans was brought about by a precipitous drop in the production of the traditional source of vegetable protein (i.e. pulses) for India's 300 to 400,000,000 vegetarians.

There were a number of less spectacular unexpected developments which did not generally result in benefits but conversely resulted in difficulties in project implementation. These included:

1. The initial delay in project release due to a delay in the Congressional presentation (for reasons unrelated to this project) which caused the advisors to miss most of a processing season.
2. The severe drought which greatly affected the following season so that only minimal opportunity was available for detailed operations study.
3. The procedural difficulties which arose in connection with the Oilseed Growers Cooperative Project (NDDB) in mid-CY 1980 which resulted in the project team leader (CLUSA Representative) not being able to participate on a direct consulting basis until late CY 1981 and only on a minimal supervisory and consultative basis during that period.
4. The refusal of the Registrar of Cooperative Societies to register the National Association of Cooperative Oilseed Processors (NACOP) resulting in a delay in institutionalizing the training phase as well as losing both the participation of R. D. Bedi and full time participation of the counterparts.

Lessons Learned

No formalized discussion of this subject is included in the evaluation report. A summary of the items listed under this subject in previous project narratives and recent additions is as follows:

1. The length of any study/familiarization tours in the U.S. should be more than 3 weeks when the subject involves a complex, geographically scattered industry. If possible, the initial tour should be scheduled to include Advisory Committee review of the work plan and an opportunity of interviewing any proposed long term advisor candidates.
2. The difficulties in recruiting suitable highly qualified personnel for long-term assignments in advanced technical fields indicate that long-term "in-service" training and a multiplicity of short-term specialists should be emphasized. In the Indian context (and it is suspected as being true in most developing countries), long-term advisors should be people with extensive practical plant operations experience (rather than highly specialized, advanced degree types) supplemented by highly specialized short-term consultants since the major lack of expertise is in practical operations.
3. What might appear to be much more than adequate time should be allowed for administration to accommodate USAID audit and reporting requirements since these will vary from time to time.
4. Project schedules should attempt to provide adequate "slack" to accommodate unforeseen developments--both external and to exploit unforeseen favorable developments.
5. Training/familiarization programs for high level personnel must be flexible as to timing and location in order to permit full participation. Much more than normal advance notice should be given participants.

Special Remarks

Unfinished Items--

The discussion of this subject begins on page 45 of the evaluation report. It should be emphasized that the major unfinished task of this project is insuring that the use of the improved operating systems, and the general philosophy thereof, is spread to all of the units. Not only must the training program be defined in detail (including refinement of the manual and training materials) and the managers convinced of its necessity but also it is my personal opinion that some expatriate contact should be involved in order to catalyze the subsequent program and avoid it "being lost in the shuffle". The soybean processing assistance project being requested by NCDC should provide for some involvement in the training program and help with formalizing (as NACOP or an NCDC Department or whatever) the continuing development process.

There are several minor clarifying comments which should be made:

1. On page 47 of the evaluation report reference is made to the need for capacity integration. Although generally true, there are a number of exceptions which should be kept in mind:
   a. Where a possibility for future expansion exists the solvent extraction unit should be so sized. For example, a 200 ton per day extractor will cost only some 10 to 15% more than a 100 ton if installed initially whereas later installation of the extra 100 tons may well more than double the cost. Moreover, the potential exists for processing outside purchased cake or other raw material which does not require preparation.

b. In the case of cottonseed where other raw materials might also be available, the economics of sizing the rest of the plant to handle both materials but the delinting section only to handling the cottonseed available by running all year (and alternating) between the two materials by storing black seed) are overwhelmingly favorable because of the relatively high cost of the delinting section which in turn is directly proportional to capacity.

c. In general, the concept of dual purpose plants should be emphasized rather than single product, "balanced" installations. This is really pointed out, though couched in general terms in item 3 and page 48 of the evaluation report itself.

Recommendations

On page 51 of the evaluation report under "Evaluation of Project Strategy" are what amount to recommendations that require some clarifying comments. Items 1 and 2 of these disagree with conclusions reached by project personnel. First, it should be realized that the 10 categories listed were for exploration and if they could have been sorted out earlier than half-way through the project, we wouldn't have needed that most important half. This, of course, is also true of the advisor selection. If we had decided on firm qualifications for the advisors ahead of time, Mr. Petersen probably would not have been hired. The concept was that any specific, sharply defined duties would be handled by short-term consultants. In other words, if we had known exactly what was going to happen, no long-term advisors would have been required. Recognizing the problem was more than half of the effort. It is felt that any attempt to hamstring the development with other than broad goals would have tended to minimize its potential for development.

The recommendations beginning on page 52 of the evaluation report are heartily endorsed and will be the subject of a future communication vis-a-vis future fit with any second project. It should be mentioned that the AID/CLUSA investment is even much more substantial than indicated on page 59 since it goes back to Bud Rissler on an AID contract from 1965 to 1970 as well as the Representative's part-time involvement from 1973 to 1978.