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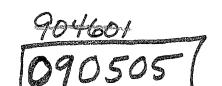
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Federal Assistance To Quechan Indian Tribe For Controlled Environment Agricultural Program 8-130515

BY THE COMPTROLLER GENERAL OF THE UNITED STATES



MAY 13, 1974



# COMPTROLLER GENERAL OF THE UNITED STATES WASHINGTON, D.C. 20848

B-130515

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 $C_1 \stackrel{*}{\underset{\sim}{\longrightarrow}} The \ Honorable \ Victor \ V. \ Veysey$  House of Representatives

Dear Mr. Veysey:

At your request we reviewed the Federal Government's funding of the Quechan Indian Tribe's Controlled Environment Agricultural Program, a tomato-growing project in the Imperial Valley, California. Your office agreed that our review would emphasize (1) the basis for undertaking the project, (2) the sources of the funds provided, (3) the uses made of the funds, and (4) the results achieved. The following report presents our findings and conclusions.

The project involved constructing greenhouses and other facilities needed for the year-round growing of tomatoes and for getting the first crop planted and harvested. The project was funded by the Office of Economic Opportunity (63 percent) and the Departments of Commerce (29 percent), 74 the Interior (7 percent), and Labor (1 percent). The Office of Economic 33, 7 Opportunity's responsibility was subsequently transferred to the Depart50ment of Health, Education, and Welfare.

With the assistance of \$1.3 million in Federal funds, the project has been nearly completed. The project's general manager expected it to be self-supporting after January 31, 1974. The Federal assistance exceeded by about \$300,000 the amount originally requested because of such factors as higher construction costs, delays in project completion, additional construction items, and underestimates in the initial cost proposals.

The project has come close to achieving its goal of providing permanent employment opportunities to 30 Indian tribal members. During the construction phase the project employed 35 tribal members, although their employment added to the construction costs because they were not skilled workers.

Regarding its other goal—to earn a \$96,000 annual net income for the tribe—the project has not yet shown the potential to realize such a profit. The project's proposed budget for the fiscal year ending September 30, 1974, anticipated a profit of only \$20,000. If expenses for consulting services and depreciation of equipment and facilities are considered, the tribe will not realize a net income from operations in the current fiscal year.

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At this time it is difficult to reliably forecast profits because the project has not been through the full annual operating cycle of two crops and because the impact of competition from imported Mexican tomatoes on the marketing and pricing of the project's winter crop is not known.

As agreed with your office, we obtained comments on the matters presented in our report from the three Federal agencies which provided most of the funding. The agencies concurred with our presentation of their respective roles in financing the project.

We do not plan to distribute this report further unless you agree or publicly announce its contents.

Sincerely yours,

Comptroller General of the United States

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BIA Bureau of Indian Affairs				
CEAP Controlled Environment Agricultural Program				
EDA Economic Development Administration				
HEW Department of Health, Education, and Welfare				
IDDA Indian Development District of Arizona				
OEO Office of Economic Opportunity				

## CONTROLLED ENVIRONMENT AGRICULTURAL PROGRAM FOR QUECHAN INDIAN TRIBE, FORT YUMA RESERVATION IMPERIAL VALLEY, CALIFORNIA

#### INTRODUCTION

From June 1971 through January 1974, the Federal Government provided \$1.3 million in assistance funds for the Quechan Indian Tribe's Controlled Environment Agricultural Program (CEAP), a tomatogrowing project in the Imperial Valley, California.

We made our review at the Quechan Indian tribal headquarters on the Fort Yuma Indian Reservation, Yuma, Arizona, and the University of Arizona's Environmental Reserach Laboratory in Tucson—the technical consultant for the project. We also obtained information from the Office of Economic Opportunity (OEO) headquarters in Washington, D.C.; the Western Regional Office of the Economic Development Administration (EDA), Department of Commerce, in Seattle, Washington; and the Bureau of Indian Affairs (BIA), Department of the Interior, headquarters. Our review included an examination of OEO's and EDA's policies, procedures, and records relative to the administration of grant funds for the project and CEAP's financial and operating records.

We interviewed tribal, OEO, EDA, and BIA officials; CEAP employees; and university representatives. We also discussed agricultural aspects of the project with the Imperial County Agricultural Services Advisor in El Centro, California, and with three tomato farmers in the Imperial Valley.

The Quechan Tribe's Fort Yuma Reservation covers 9,281 acres, of which 8,600 are fertile irrigable land. Most of the reservation land is on the California side of the Colorado River, about 1 mile west of Yuma. The remainder of the land is in Arizona.

In March 1973 about 1,600 tribal members were living on the reservation. Their income was primarily from rental of land and farmwork. Tribal members in the work force numbered 737, of which 42 percent were unemployed. The annual median family income was \$2,800.

#### BASIS FOR UNDERTAKING THE PROJECT

The Quechan Tribal Council president expressed the idea of year-round greenhouse farming as a <u>job-development venture</u> at an OEO economic development seminar in 1968. He stated that such a project was ideal for Indians because of their cultural attachment to the soil.

Because of the favorable reception the idea received from OEO representatives, the tribe subsequently obtained the services of the Environmental Research Laboratory to (1) make the original cost estimates for the project, (2) serve as project engineer in designing the project, and (3) provide the technical expertise in the training phase of the project. The tribe selected the Laboratory because of its experience with controlled-environment farming at a research and training center in Puerto Penasco, Mexico; a small business venture in Tucson, Arizona; and a research center in Abu Dhabi on the Arabian Gulf.

The Laboratory found the concept of <u>year-round greenhouse farming</u> feasible and designed a project that would provide for growing 2 or 3 crops of tomatoes each year, give permanent employment to 30 Indians, and earn an estimated annual profit of \$96,375 for the tribe.

The planned project included (1) two greenhouses covering 5 acres of land for growing tomatoes, (2) a nursery for plant germination, (3) a service building for packaging and storing produce, and (4) a lake for thermal storage and water recycling. The lake was subsequently deleted from the project plan in favor of a more economical and maintenance-free evaporative cooling system. See appendix I for an architect's drawing of the project. In designing the project, the Laboratory considered three materials for greenhouse construction--glass, fiberglass, and plastics. Glass was selected because it would be least costly in terms of material and maintenance.

In approaching OEO for financial assistance, the tribe estimated the cost of the program, which included necessary construction and first-year operational cost, at about \$1,000,000. The construction of the facilities was to have been completed by February 1972 and the first tomato crop planted about that date. No Federal assistance was projected after the first full year of farming operations (Feb. 1, 1973).

The projected annual \$96,375 profit in subsequent years was based on estimated revenues of \$375,000 from the sale of 75,000 lugs (20-pound boxes) of tomatoes at \$5 a lug, less estimated expenses of \$278,625. The expenses included \$175,000 for salaries and employee benefits, \$30,000 for consulting services, \$41,000 for horticulture supplies, \$20,000 for fuel and utilities, and \$12,625 for equipment depreciation. The projected profit, however, did not allow for depreciation of buildings and related facilities.

We discussed the feasibility of year-round growing of tomatoes with the Imperial County Agricultural Services Advisor and three Imperial Valley tomato growers whose names we obtained from the advisor.

These discussions brought out the risks involved in growing a winter crop of tomatoes outdoors in the Imperial Valley, indicating the need for greenhouses to protect the plants against frost.

The advisor informed us that he did not know of any farmers in the Imperial Valley who were planning to grow tomatoes for winter harvest. He attributed this to the high risk of frost and competition that a winter crop would encounter from tomatoes imported from Mexico. He knew of only one farmer who had planted tomatoes for winter harvest. That farmer lost his crop during a heavy frost.

Each of the three tomato farmers stated that he grows only one crop of tomatoes which is harvested in the summer. All three confirmed that it was very risky to grow tomatoes for winter harvest and that competition from tomatoes imported from Mexico made the growing of a winter crop economically unfeasible. Statistical data published by the Department of Agriculture's Marketing Service shows that about 44 percent of the tomatoes sold in the United States from January through May 1972 were imported from Mexico.

A representative of the Environmental Research Laboratory, whom we questioned regarding the possible impact of Mexican-grown tomatoes on the projected sales of the project's winter crops, assured us that such an impact had been considered in terms of both quantity and price used in the sales forecast. He also said that the greenhouse-grown tomatoes would be superior in quality to those imported from Mexico and would command a higher price in the marketplace.

#### SOURCES OF FUNDS PROVIDED

OEO and several other agencies financed portions of the project. OEO funded the greater part of the construction and the first-year operating costs; EDA financed one-half of the construction cost of the greenhouses; BIA and the Indian Development District of Arizona (IDDA) provided employment assistance and vocational funds during the operational phase of the program. IDDA, a corporation formed to implement and carry out public works and economic development on Indian reservations, made available manpower training funds provided by the Department of Labor.

The tribe provided the necessary acreage for the project to which an annual rental value of \$3,000 was assigned. The grant agreements specified no other non-Federal share of project costs.

The tribe was advised by OEO that it could provide only \$500,000 for the initial program year and, accordingly, the tribe submitted to OEO in March 1971 an application for a \$500,000 grant for the program year which began February 1, 1971. In this application the tribe also

projected a need for OEO assistance of \$227,750 in the second program year which began February 1, 1972. In addition, the tribe applied in October 1971 for \$272,500 from EDA to finance one-half of the \$545,000 estimated construction costs of the two greenhouses, the nursery, and the service building. These three amounts totaled \$1,000,250 of the Federal assistance originally requested for CEAP.

Relying on the Laboratory's plans and cost estimates and a marketing survey conducted by a consultant, OEO determined that the project was feasible. Under OEO procedures, projects of \$50,000 or more require an evaluation by the OEO Project Review Board and a waiver from the Director of OEO to enable it to participate in the funding of construction projects. OEO officials told us that the evaluation had been made and a waiver had been obtained but that they could not provide us with documentation showing that the procedures had been followed.

EDA, which was financing other projects on the Fort Yuma Reservation, agreed to provide the requested one-half of the construction costs for the greenhouses and the other buildings. EDA approved the grant in March 1972 following its policies and procedures governing the review and approval of public works construction grants for Indian tribes.

As of June 30, 1973, compared with the initially estimated need for \$1,000,250, the project actually had received commitments totaling \$1,305,162, as follows:

	<u>Commitment</u>	Percent of total	
OEO EDA BIA IDDA	\$ 822,800 375,000 94,602 12,760	63 29 7 1	
Total	\$1,305,162	100	

In June 1971 0EO granted the tribe \$500,000 for the first program year and authorized a letter of credit in that amount. In February 1972 0EO granted an additional \$267,800 for the second program year ended January 31, 1973, which exceeded the initial estimate by \$40,050. This larger amount was needed to complete the construction of the facilities, including 0EO's share of the estimated construction costs of the greenhouses and the planting and harvesting of the first crop of tomatoes.

In February 1973 the tribe requested, and OEO's Indian Programs Branch agreed to transfer to CEAP, \$40,000 from the tribe's general

community funds which OEO would make available for community action programs in August 1973. The tribe requested the money to continue the services under the contract with the Laboratory and to meet operational costs for the first crop of tomatoes. The funds were paid to the project on September 17, 1973, when community action funds became available. In April 1973 the tribe transferred, with OEO approval, \$15,000 from its general community funds to CEAP for administrative expenses. OEO approved these transfers under its policies which allow transfers between OEO-funded projects.

EDA paid in June 1972 the \$272,500 which it had previously committed for constructing the greenhouses and other buildings. In January 1973, because available funding was insufficient to cover the remaining construction costs, the tribe requested additional funding of \$102,500 (one-half of the estimated requirements). EDA approved this request in April 1973 and, at June 30, 1973, was withholding a \$18,600 balance pending certification of the final construction expenditures.

BIA approved training funds for \$94,602 to CEAP under its Employment Assistance Program which provides assistance to Indian trainees for 1 year. Payments to employees under this program began on September 1, 1972, and ranged from \$202 to \$502 a month per employee, depending on the employee's family status. The funds received by the 25 employees participating in the program were credited against their wages and thus reduced the amounts payable by the project. A BIA official told us that, since the Laboratory was supervising the training of these employees, the employees were considered students and eligible for employment assistance.

In March 1973 IDDA subcontracted with the tribe in the amount of \$12,760 for up to five CEAP employees to participate in the Department of Labor's Job Opportunities in the Business Sector Program through January 31, 1974. This program provides on-the-job training opportunities for employees and reimburses the employer up to one-half of the wages paid these employees.

OEO's project participation ended when the administration of programs to deal with the special problems of poverty of Indians was transferred effective July 6, 1973, from OEO to the Department of Health, Education, and Welfare (HEW). These programs were placed under the jurisdiction of the Office of Native American Programs in HEW's Office of Human Development.

#### USES MADE OF THE FEDERAL FUNDS PROVIDED

As of June 30, 1973, the tribe had spent \$1,148,770 to construct the facilities and operate the project. CEAP's general manager told

us that an additional \$156,392 in Federal funds would be needed to complete construction of facilities and to operate the project through January 31, 1974.

Our analysis of the expenditures incurred through June 30, 1973; those expenditures estimated to be made through January 31, 1974; and a comparison of actual and estimated expenditures with the original estimate of Federal funds required is presented below. We made our comparison only by general cost groupings because CEAP's accounting records did not provide for a detailed classification by cost categories that could be compared with the cost data presented in the original estimates.

	Federal funds committed				
	Original estimate of Federal funds needed	Actual expenditures through 6-30-73	Estimated expenditures through 1-31-74	Total	Cost overrun
Construction of greenhouses, nursery, and service building	\$ 545,000	\$ 761,890	\$ <b>-</b>	\$ 761,890	\$216,890
Architect and engi- neering, consultin and training servi- (note a)		149,900	30,000	179,900	30,450
Other costs (note b	·	236,980	126,392	363,372	57,572
	\$1,000,250	\$1,148,770	\$156,392	\$1,305,162	\$304,912

aRepresents costs under contract with Environmental Research Laboratory.

The tribe, in its initial grant application to OEO, anticipated that the project would need no further Federal funding after the first full year of farming operations; however, there had been slippages both in the construction of facilities and in the planting of crops.

Except for the erection of a security fence, the facilities included in the original grant application were completed at June 30, 1973. Project personnel were trained by May 1973, and the first crop of tomatoes was harvested by August 1973.

bIncludes site preparation and certain construction costs, purchase of equipment, and farming operations.

The project slipped about I year. Some of the slippage could be attributed to delays in OEO and EDA funding. For example, OEO limited the amount of its funding for the first program year.

The major cost increase applied to the construction of the two greenhouses and accounted for \$216,890 of the overrun. In its application to EDA for additional funds to cover the anticipated overrun, the tribe gave several reasons.

- l. The tribe stated that increased construction costs were due to the use of tribal members inexperienced in construction activities normally performed by highly skilled workers. The use of Indian labor had not been anticipated at the time of the initial grant application but was decided on as a means of alleviating unemployment on the reservation.
- 2. The application to EDA also mentioned increases in material costs and underestimates of costs shown in the original application. In this connection, the CEAP general manager advised us that rising costs during the period of delay and added items whose need had not been foreseen at the time of the original estimate also contributed to the cost overruns.

Although the dollar impact of each of the above factors could not be readily determined because of the absence of detailed cost records or estimates, we were able to identify the following major cost variations in our discussions with the general manager.

- --The contract for electrical installation was initially estimated to cost \$80,000, whereas the actual contract cost was \$89,000. The \$9,000 overrun was attributed largely to the funding delay.
- --The cost of the boilers to heat the greenhouses was estimated at \$24,600, whereas the actual cost was \$53,600. The original estimate did not include the installation cost of \$29,000.
- --The cost of the irrigation system used in the greenhouses resulted in a \$30,000 overrun because more material and labor were needed than originally estimated.
- --The original estimate did not include \$30,000 for consulting services that the Environmental Research Laboratory provided during the second program year.

- --The original proposal did not provide for an administration building which was constructed at an estimated cost of \$28,000. CEAP's general manager told us that the tribe had intended early in the project to construct this building if funds became available and had not requested additional Federal funds. The use of \$28,000 for constructing and equipping this building, however, was not specifically provided for in OEO grant documents. After we brought this to the attention of HEW--which had taken over OEO's responsibility for the project--HEW told us that this was a proper use of grant funds, especially because of the need for the building in question and the reasonableness of the cost involved.
- --The original estimate did not include \$40,000 for a desalting unit. The general manager told us that the project needed such a unit to desalt well water required for its irrigation system. The well water had not been tested for its salt content before the estimate was made but was later found to contain 2,000 parts of salt per million parts of water and to require treatment.

The above overruns were offset, in part, by certain cost underruns. For example, we were informed that some savings resulted from the use of excess property obtained from the General Services Administration without cost. The project acquired generators—which would have cost about \$20,000—for providing standby electrical service. Also, CEAP obtained miscellaneous hardware valued at about \$5,700.

# PROGRAM RESULTS ACHIEVED

The tribe's proposals to OEO and EDA stated that CEAP would provide permanent employment for approximately 30 tribal members and an annual net income of \$96,375 to the tribe. The employment goal has almost been achieved; however, the project has not yet shown the potential to operate at the anticipated profit.

# Indian employment

The project employed at June 30, 1973, 31 permanent workers, 27 of whom were Indians. Of the 27 Indians, 24 worked as technician trainees earning from \$5,200 to \$5,720 a year, 1 as a maintenance man earning \$5,200, 1 as the shipping and receiving clerk earning \$6,760, and 1 as project production supervisor earning an annual salary of \$10,176. In addition, three tribal members employed temporarily were earning annual incomes of \$4,160.

During the construction phase, the project employed 35 tribal members. CEAP kept eight of these in various capacities when the major part of the construction work had been completed. Also, we were told that three tribal members obtained jobs in private industry as a direct result of the experience they gained on the project.

## Project income

The first crop harvested in the summer of 1973 totaled 24,815 lugs of grades 1 and 2 tomatoes, 2,215 lugs of grade 3 tomatoes, and 118 10-pound boxes of cucumbers. CEAP received an average price of \$4.12 a lug for its grades 1 and 2 tomatoes and \$2.13 a lug for its grade 3 tomatoes. Total sales amounted to \$115,379. We were unable to determine whether the project made a profit from these sales because project records included the production costs associated with the crop with other expenditures chargeable to 0EO grant funds.

The sales proceeds were placed in a separate account subject to the council's direction, and we were informed that they would be used for operating expenses of the second crop period. However, at the council's direction on July 2, 1973, the project transferred \$15,000 to the tribe in July 1973 and \$25,000 in October 1973. The tribal chairman advised us that these funds were needed for tribal administrative expenses and non-Federal projects.

In September the council passed a resolution establishing a farm board to oversee the operation of CEAP in accordance with sound business practices. The resolution also established criteria governing the distribution of CEAP profits to the tribe and the use of excess cash balances. The distribution would consider such factors as working capital needs of the farm, planned expansion and replacement of facilities and equipment, and prospects of agriculture in general.

In a proposed budget submitted to the council in December 1973, CEAP estimated it would earn a net income of \$20,240 from its operation during the fiscal year October 1, 1973, to September 30, 1974.

In the budget, revenues were estimated at \$365,000 from sales of a fall crop and a spring crop of 720,000 lbs each, or a total of 72,000 lugs, at an average sales price of 27-1/2 cents a pound for the fall crop and 22-1/2 cents for the spring crop, and from a small amount of cucumber sales and delivery services. The project anticipated that each crop would yield 36,000 lugs of grades 1 and 2 tomatoes, exceeding its first crop yield of 24,815 lugs, because (1) the experience gained from harvesting the first crop was expected to result in more efficient production and (2) the crops were not expected to be infected by a fungus that had greatly reduced the

first crop. The general manager told us that future harvests should include a higher percent of grade 1 tomatoes, which command a better price in the market, than was harvested during the first crop.

The budget estimated the expenses for the year at \$344,760. Since the project had not gone through a complete annual cycle, we were unable to evaluate the reasonableness of the estimate on the basis of past experience. We noted, however, that the estimated expenses did not include provisions for consulting services and for depreciation of plant and equipment.

The CEAP general manager stated his belief that the Environ-mental Research Laboratory's consulting services would be on an "as needed" basis and estimated the cost of such services at \$10,000. We could not compute the proper amount of annual depreciation because the project's accounting records did not clearly identify all the costs of depreciable assets. But using about \$762,000 of construction costs shown in the cost analysis on page 6 and a service life of 15 years as suggested in the University of Arizona's original proposal, we estimated the annual depreciation at about \$50,000.

In the original \$96,375 profit forecast, the project advisors from the University of Arizona had allowed for continuing consultant services and for depreciation of equipment. They also had pointed out that this profit would have to cover amortization of facilities if financed by a loan. Although the capital costs were financed by Government grants and the tribe does not have to recover the investment from operating revenue, depreciation should be considered as a cost in determining the net income from a revenue-producing activity, such as CEAP. Also, by recognizing depreciation systematically, the tribe would have information as to the amount of cash funds that should be set aside annually toward the replacement of the facilities.

If these additional expenses are considered, the tribe will not realize a net income from operations in its current fiscal year.

#### PROJECT EXPANSION PLANS

At the tribe's request, the Environmental Research Laboratory prepared in July 1973 a cost estimate for expanding the greenhouse project by an additional 5.5 acres of greenhouses, including 0.5 acres of nursery area. The Laboratory recommended, however, that, before undertaking the expansion, the tribe consider (1) production capabilities during the hot summer months, (2) manpower capabilities to staff and operate such a facility, and (3) availability of water for irrigation. Also, the Laboratory said that so far little was known about the year-round performance of the project.

EDA expressed an interest in the proposed expansion program but gave the tribe no assurance that it would approve the expansion.

#### CONCLUSIONS

With the assistance of \$1.3 million in Federal funds, the CEAP project has been substantially completed. The general manager expected it to be self-supporting after January 31, 1974. The Federal assistance exceeded by about \$300,000 the amount originally requested because of such factors as higher construction costs, delays in project completion, additional construction items, and underestimates in the initial cost proposals.

The project has come close to achieving its goal of providing permanent employment opportunities to 30 tribal members. Also, during the construction phase the project employed 35 tribal members, although their employment added to the construction costs.

Regarding its other goal—to earn for the tribe a \$96,000 annual net income—the project has not yet shown the potential to realize such a profit. The project's proposed budget for the fiscal year ending September 30, 1974, anticipated only a \$20,000 profit before consulting services and depreciation charges which would substantially exceed this amount. At this time, it is difficult to reliably forecast profits because the project has not been through the full annual operating cycle of two crops and the impact of competition from imported Mexican tomatoes on the marketing of the project's winter crop is not known.

OEO, which contributed the largest share of Federal assistance, provided its support on the basis of technical studies by the University of Arizona's Environmental Research Laboratory and by OEO's marketing consultant. However, there was no documentation in OEO's files to show that the project had received the required evaluation by the OEO Project Review Board and that the Director of OEO had issued the waiver needed to authorize OEO funding of construction projects. In view of the special and costly concept, chosen for this project, of year-round greenhouse farming of tomatoes, we believe that documentation of Federal approval of the project's feasibility was particularly important before the commitment of grant funds.

OEO's grant agreement with the tribe made no specific provision to insure that sales proceeds realized by the project during the period when its operating expenses were paid from Federal assistance funds would be used only for project purposes and to require an accounting for such proceeds together with the expenditure of grant funds. Although the sales proceeds from the first

crop were placed in a separate account to be used for the operating expenses of the second crop, the tribe withdrew funds totaling \$40,000 for other tribal uses.

The tribe subsequently established certain safeguards governing the disposition of net profits and excess cash balances. These safeguards should protect the project's working capital needs.

## AGENCY COMMENTS

We solicited comments on the matters presented in this report from the three departments--HEW, Commerce, and Interior--which provided most of the project funding. These agencies concurred with our presentation of their respective roles in financing the project. BIA also stated its belief that the project had been effective in achieving its employment goals.

