AIRGRAM **DEPARTMENT OF STATE**

3860-342 (2)
PD-AAD-102-B1

UNCLASSIFIED
CLASSIFICATION

For each address check one ACTION | INFO

DATE REC'D.

DISTRIBUTION
ACTION
N-10
INFO.
AAPC
SRD
PPC
ACONT
ACC
EXSEC

TO - AID/W TOAID A- 540

A.I.D.
Reference Center
Room 1656 NS

DATE SENT
6/12/1969

FROM - New Delhi

SUBJECT - Rural Electric Cooperatives Development *

REFERENCE - NON-CAPITAL PROJECT PAPER (PROP)

Country: INDIA Project No. 386-11-220-342

Submission Date: June 12, 1969 Original

Project Title: Rural Electric Cooperatives Development*

U.S. Obligation Span: FY 1967 through FY 1973

Physical Implementation Span: FY 1967 through FY 1974

Gross life-of-project financial requirements:

U.S. Dollars:		$ 1,099,000
U.S. owned local currency:	Not applicable	
Fourth Five Year Plan:	Not available	
Cooperating Country Contributions (Trust Fund)	Rs. 4,104,000	(Equiv. $ 540,000
Totals:	Rs. 4,104,000	$1,639,000

* Short Title: Rural Elec Coop Dev

DRAFTED BY	OFFICE	PHONE NO.	DATE	APPROVED BY:
GDunn - AG/EC	AG/EC		6/13/69	DD: John Funari

AID AND OTHER CLEARANCES
AG:OABauman
AG:ROlson
DP/P:RLPedel

UNCLASSIFIED
CLASSIFICATION

AID-5-39 (11-66) (Do not type below this line) PRINTED 1-66

BEST AVAILABLE COPY

I. SUMMARY DESCRIPTION

A. NECESSITY AND JUSTIFICATION

The Government of India has recognized the need for an increase in the availability and use of electricity to achieve the established goals of agricultural production and expand the agricultural productivity of the rural areas. Of India's more than 500-million population, 80 per cent or more than 400 million live in rural villages of less than 10,000 population. Of these only about 50 millions have access to any type of electric service. The primary distributors of electricity to rural areas are the State Electricity Boards, who have limited funds and under present systems of operation and rate structure find rural distribution systems unprofitable.

To attain a sustained growth in food production depends upon increasing the productivity of these village lands with an assured water supply and the development and expansion of those agro-industries which are essential to modernizing India's agriculture. If rural electric distribution systems are extended, vast areas can be irrigated efficiently and economically and small local industry will develop to provide production tools and marketing facilities such as processing plants and storage facilities. This project is designed to adapt the U.S. rural electric cooperative concept of electric distribution, which has been largely responsible for electrifying rural America, to India.

B. PROJECT GOALS AND TARGETS

This project will, over a period of five years, or more if necessary, seek to develop a design of rural electrification that will accomplish the following goals:

1. Furnish electricity to the rural cooperative members at reasonable rates in order to increase agricultural production; stimulate small agro-industry; and, improve the standard of living for the rural population.

2. Increase the participating role of the people by giving them some degree of control of their electricity supply.

3. Establish local organizations for the financing, procurement, installation, repair and proper use of electrical appliances and equipment such as pumpsets.

4. Provide the basis for a rapid, and standardized pattern of construction and operation for rural electric systems in all states of the Union.

5. Provide meaningful training experiences for Indian personnel involved in rural electric cooperative activities so they can help other such cooperatives.

C. MINIMUM LEVELS OF OUTPUT/ACHIEVEMENT

The primary goal of this project is to establish and demonstrate a new technique for the distribution of electric service to rural areas of India. It is expected that, through technical assistance to the five pilot projects, the primary goal can be achieved and that the new technique can be adopted over a widespread area as a means of implementing the GOI development plan for rural electrification.

This can be considered a modest but significant input, appropriate to the need, and can and will be pursued so long as the program continues to draw the required national, state and local support. While the timetable for the project seems reasonable it may require a reappraisal by mid FY1971 to determine the extent and nature of further U.S. support in light of performance and existing circumstances at that time.

D. GENERAL APPROACH/PLAN OF ACTION

The project provides for the organization, construction and operation of pilot cooperative electric distribution systems in selected areas in five states to serve as demonstrations of the system. In the initial stage, these cooperatives will provide electricity to some 93,000 members in 1200 villages, embracing a population of 1½ million people. If successfully adapted to conditions in India, it is expected that other areas will be developed by use of personnel trained in the five original pilot projects.

USAID is providing technical assistance by contract with the National Rural Electric Cooperative Association (NRECA), to carry out the project through a series of five phases of development. Each successive phase has been contingent upon the acceptance of the accomplishments and recommendations of the previous phase. A participant training program is being coordinated with the phases of development to provide personnel for proper operation and management of the cooperatives. The GOI has established an ad hoc committee at the Center with representation from interested departments and agencies of

government to represent the GOI and establish proper liaison with the State Governments concerned. In addition, the GOI plans to provide the necessary capital to finance construction of the five distribution systems by a loan from the Rural Electrification Corporation now being established. The Corporation will make loans to cooperatives or State Electricity Boards for the construction of electric facilities to rural areas based on criterion established by the Corporation. A GOI budget item provides for the initial equity capital of the Corporation and negotiations are underway with USAID for a grant of U.S.-Uses Rupees as additional capital for the Corporation.

F. SUMMARY DESCRIPTION

CONTRACT TECHNICIANS/CONSULTANTS

POSITION	NUMBER/MAN-MONTHS*				
	FY-70	FY-71	FY-72	FY-73	FY-74
Rural Elec. Mgt. Spec.					
Andhra Pradesh	1/11	1/12	1/12	1/12	
Gujarat	1/11	1/12	1/12	1/12	
Mysore	1/11	1/12	1/12	1/12	
Maharashtra	1/11	1/12	1/12	1/12	
Uttar Pradesh	1/11	1/12	1/12	1/12	
Consultants	3/ 9	3/ 9	2/ 6	2/ 6	2/ 6
TOTALS:	8/64	/69	7/66	/67	2/ 6

PARTICIPANTS

TYPE OF TRAINING	FY-70	FY-71	FY-72	FY-73	FY-74
Rural Elec Operation and Management	8/32	10/40	10/40	10/40	
TOTALS:	8/32	10/40	10/40	10/40	

* The project will be reviewed in FY 71 and determination made at that time about needed inputs for the last three years. The above represents our best judgment at this time.

5 11

UNCLASSIFIED

NEW DELHI TOAID A-540

NON-CAPITAL PROJECT FUNDING (OBLIGATION IN $000)

COUNTRY: INDIA
PROJECT TITLE: RURAL ELEC. COOP DEV.

PROP DATE: June . 1969
PROJECT NO: 386-11-220-342

Fiscal Year	APP	L/G	Total	1/ Cont.	Personnel Services AID	Personnel Services PASA CONT	Participants US Agen.	Participants CONT.	Commodities Dir US Ag.	Commodities Dir CONT	Other costs Dir. & US Ag.	Other costs CONT
Prior through actual FY 1969	TC	G	356	340		339	16	-		1		
Oper. Yr. FY 1970	TC	G	150	116		114	34			2		
Budget yr +1 FY 1971	TC	G	244	201		200	43			1		
Budget Yr. +2 FY 1972	TC	G	242	199		197	43			2		
Budget yr. +3 FY 1973	TC	G	107	64		62	43			2		
Budget yr. +4 FY 1974	TC	G	-	-		-	-					
All Subsequent Years	TC	G	-	-		-	-					
Total Life			1099	920		912	17			8		

1/ Memorandum Now-add column.

UNCLASSIFIED

Fiscal Years	AID-Controlled Local Currency: U.S. owned	AID-Controlled Local Currency: Country owned a/ ($Equiv.)	Other Cash Contribution Cooperating Country	Other Donor Funds ($ Equiv.)	Food for Freedom Committee: Metric Tons (000)	Food for Freedom Committee: CCC Value & freight ($000)	Food for Freedom Committee: World Market Price ($000)
Prior thru Actual FY'69	-	184	-	-	-	-	-
Operational Year FY 1970	-	68	-	-	-	-	-
Budget Year + 1 FY 1971	-	123	-	-	-	-	-
Budget Year + 2 FY 1972	-	125	-	-	-	-	-
Budget Year + 3 FY 1973	-	40	-	-	-	-	-
Budget Year + 4 FY 1974	-	-	-	-	-	-	-
All subsequent years	-	-	-	-	-	-	-
Total Life	-	540	-	-	-	-	-

a/ GOI Trust Fund administrated by USAID

II. SETTING AND ENVIRONMENT

The Fourth Plan earmarks substantial funds to increase the investment in rural electrification. The Mission is encouraging the expenditure of these funds for projects which will contribute to agricultural productivity rather than projects which are basically social in nature. The bulk of the cost for rural electrification is for domestically produced goods and services. Thus, there is an excellent opportunity for the GOI to implement a significant program in this field.

The State Electricity Boards, performing along the profit maximization principle, are acting similar to U.S. privately owned power companies in the 1930's; [illegible] neglecting rural electrification in favor of urban power development. Therefore, there appears to be a definite role and need for the Indian cooperatives in rural electrification.

The GOI, realizing that increased agricultural production would be encouraged by expanded well irrigation, more efficient processing of foodgrains, and better storage facilities, and that these changes depend in part on villages being supplied with electricity, has requested U.S. assistance to help them establish the role of cooperatives in the fields of organization, construction, and operation of rural electric schemes under local ownership.

In response to this request NRECA provided four rural electrification specialists for 7 man/months during September to November 1966, to carry out an extensive feasibility study - Phase I - to examine the possibilities of initiating a few pilot rural electric cooperatives patterned after successful ones in the U.S. This preliminary study was to basically evaluate at first hand the Indian context within which rural electrification cooperatives would have to be established, and recommend such practices as appear to be applicable to meet Indian requirements. As a result of this study, one area in each of six states, viz: Andhra Pradesh, Gujarat, Maharashtra, Mysore, Uttar Pradesh, and Rajasthan, was identified as meeting the criteria for the establishment of a pilot electric cooperative.

The GOI has established an ad hoc committee at the Central Government level with members from the various interested government departments to give guidance and direction to the program; to provide for a system of finance for construction; and to assist the pilot projects in getting started. This committee is providing liaison for NRECA teams with State Government Electricity Boards and pilot project leadership for a smooth operation in each phase of the project.

During FY1968 (September 1967 to June 1968) NRECA provided eleven specialists for 42 man/months to implement Phases II and III. It was determined that Phase II and Phase III could be carried out simultaneously by the same teams since some of the member organization functions would be deferred until Phase IV. These teams of two specialists each, one on cooperative organization and one on engineering, were assigned to the five areas recommended as pilot areas by the Phase I Team which were considered to be the most favorable and were approved by the GOI and USAID, viz. Gujarat, Mysore, Andhra Pradesh, U.P., and Maharashtra. Each team assisted in assessing the potential of the areas for effective electric cooperatives, determined the availability of resources and conducted preliminary engineering and economic feasibility studies. In addition, as a part of Phase II one technician was assigned to assist the GOI in the development of proposed legislation aimed at establishing an agency for the promotion and administration of the rural electric expansion in India.

III. STRATEGY

The electrification of rural India is an important factor in the attainment of agricultural sector's goals, one of the priority sectors of the U.S. development effort. By development of the method and competence of local communities to economically supply electric power to cooperative members, pump irrigation will become more economical and efficient, village agro-industry can expand, domestic water supplies can be developed for improved health, and schools can have the benefit of good light and can use electricity to develop improved teaching techniques. Local communities can take pride in their ability to solve their own development problems by cooperative effort.

This project can make a major contribution to:

1. Assist India to achieve self-sufficiency in food production by providing an efficient and economic source of power for development of minor irrigation;

2. Develop a new concept for institutional electric distribution;

3. Development of new management skills through guidance and training;

4. Increasing the power supply in rural areas for the development of appropriate processing, storage, marketing and distribution mechanisms for agricultural products; and

5. The promotion of the social welfare of rural villages by contributing to improved health and education facilities.

These five pilot projects will develop the technique for rural electric cooperatives and the Rural Electrification Corporation, now being organized, will provide the multiplier effect to expand the concept to other areas.

The GOI, State Governments and the State Electricity Boards have demonstrated full support to the project by offering available technical and financial assistance.

IV. PLANNED TARGETS, RESULTS AND OUTPUTS

The aim of this project is to develop five cooperatives which demonstrate the same technique and competence for organization and management that was highly successful in the development of rural electric cooperatives in the United States.

To assure continued support these cooperatives should: (a) be worthy examples of organization and management through local control; (b) effectively provide reliable electrical power and services to its member users; and (c) cooperatively conduct training and development programs which assure continued growth and expansion of the concept to other areas and states.

State Electricity Boards which are serving rural areas in varying degrees in all states will be the source of power for the pilot cooperatives. A close coordination exists between the boards and the NRECA technicians and it is expected that many of the technical staff of the cooperatives will be drawn from those Boards. Through this close coordination it is expected that State Electricity Boards which, in many instances are lacking in management skills of rural distribution systems, will profit by the adoption of operation and management techniques developed by the cooperatives.

Current and future participants will return to positions where they can effectively apply new management, operation, and maintenance skills as they function as staff for the cooperatives and work with the U.S. technicians in the construction and operation of the electric systems. The participants from the technical staff of the Center Government Ad Hoc Committee will work both to support the five pilot demonstrations and develop ways and means of expanding this cooperative service to other areas of India.

V. COURSE OF ACTION

The project is providing under contract the advisory services of the National Rural Electric Cooperative Association. Implementation

is being carried out in five phases, each succeeding phase being contingent on a favorable report from the previous phase and acceptance by the GOI.

In FY1970, Phase IV - construction and management will be initiated with one rural electric management and engineering specialist assigned for a two year tour to each of the designated Pilot Cooperatives in Gujarat, Mysore, Andhra Pradesh, Uttar Pradesh, and Maharashtra. These NRECA specialists, working under the guidance provided by the GOI Ad Hoc Committee, will work with Pilot Cooperative management personnel and appropriate state agencies to assure that organization, construction, training, and operation activities are planned and implemented in a timely and efficient manner for effective cooperative operation and service. Early in the implementation of Phase IV, the GOI and the Mission will agree upon procedures and guidelines for the development of the cooperatives.

It is expected that three short-term consultants will be required each year during Phase IV. These may be specialists on construction, management, or engineering as required. In mid FY1971 the GOI and USAID will decide the future technical requirements to complete Phase IV.

The participant training for this project is being programmed in coordination with the stages of development in Phase IV and V. Six participants were called forward on April 24, 1969; one participant from each of the project states except Gujarat (a participant was nominated but failed the physical and the state could not supply an alternate) and two from the Ad Hoc Committee. The four from the States are engineers selected from the staff of the State Electricity Boards who will work closely with the U.S. technicians on engineering and construction upon their return. The two from the Ad Hoc Committee will return to strengthen the competence of the Committee's technical staff in their role of advising the pilot cooperatives and coordinating, from the Center, the development and expansion of rural electric cooperatives among the State Government and State Electricity Boards.

Eight participants are scheduled for early FY1970. One from each state (two from Gujarat) will be selected as soon as the cooperatives are formally organized and have selected a manager who will be the participant. These participants will be trained with emphasis on operation and electric cooperative management and will return to their project in time to participate in the construction activities. The two from the Ad Hoc Committee will be trained to serve in same capacity as the two from the FY69 group.