

I. PROJECT IDENTIFICATION

| | | |
|--|--|---|
| 1. PROJECT TITLE Evaluation of Effectiveness of A.I.D.'s Lending Program in Rural Electrification | | APPENDIX ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <i>5p.</i> |
| 3. RECIPIENT (specify) <input type="checkbox"/> COUNTRY _____ <input type="checkbox"/> REGIONAL _____ <input checked="" type="checkbox"/> INTERREGIONAL ENGR | | 2. PROJECT NO. (M.O. 1095.2) 925-15-995-203 |
| 4. LIFE OF PROJECT BEGINS FY <u>72</u> ENDS FY <u>73</u> | | 5. SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <u>1/10/72</u> DATE <input type="checkbox"/> REV. NO. _____ DATE CONTR./PASA NO. _____ |

II. FUNDING (\$000) AND MAN MONTHS (MM) REQUIREMENTS

| A. FUNDING BY FISCAL YEAR | B. TOTAL \$ | C. PERSONNEL | | D. PARTICIPANTS | | E. COMMODITIES \$ | F. OTHER COSTS \$ | G. PASA/CONTR. | | H. LOCAL EXCHANGE CURRENCY RATE: \$ US _____ (U.S. OWNED) | | |
|---------------------------|-------------|--------------|--------|-----------------|--------|-------------------|-------------------|----------------|--------|---|------------------|--|
| | | (1) \$ | (2) MM | (1) \$ | (2) MM | | | (1) \$ | (2) MM | (1) U.S. GRANT LOAN | (2) COOP COUNTRY | |
| | | | | | | | | | | (A) JOINT | (B) BUDGET | |
| 1. PRIOR THRU ACTUAL FY | | | | | | | | | | | | |
| 2. OPRN FY <u>72</u> | 20 | 15 | 4.5 | | | | 5 | 15 | 4.5 | | | |
| 3. BUDGET FY <u>73</u> | 30 | 23 | 6.5 | | | | 7 | 23 | 6.5 | | | |
| 4. BUDGET +1 FY | | | | | | | | | | | | |
| 5. BUDGET +2 FY | | | | | | | | | | | | |
| 6. BUDGET +3 FY | | | | | | | | | | | | |
| 7. ALL SUBQ. FY | | | | | | | | | | | | |
| 8. GRAND TOTAL | 50 | 38 | 11 | | | | 12 | 38 | 11 | | | |

9. OTHER DONOR CONTRIBUTIONS

| (A) NAME OF DONOR | (B) KIND OF GOODS/SERVICES | (C) AMOUNT |
|-------------------|----------------------------|------------|
| N/A | N/A | N/A |

III. ORIGINATING OFFICE CLEARANCE

| | | |
|--|----------------------------------|-----------------|
| 1. DRAFTER John H. Rixse, <i>J. H. Rixse</i> | TITLE Ch., Power Div, ENGR | DATE 1/10/72 |
| 2. CLEARANCE OFFICER L. M. Hale, <i>L. M. Hale</i> | TITLE Director of Engineering | DATE 1/10/72 |

IV. PROJECT AUTHORIZATION

1. CONDITIONS OF APPROVAL

2. CLEARANCES

| BUR/OFF. | SIGNATURE | DATE | BUR/OFF. | SIGNATURE | DATE |
|------------|----------------|---------|----------|-----------|------|
| ARA/LA/PCD | Brian Bosworth | | | | |
| PRI/TPD | J. David McVoy | 1/17/72 | | | |

3. APPROVAL AAs OR OFFICE DIRECTORS

| | |
|----------------------------------|------|
| SIGNATURE L. M. Hale | DATE |
| TITLE Director of Engineering | |

4. APPROVAL A/AID (See M.O. 1025.1 VI C)

| | |
|---|------|
| SIGNATURE | DATE |
| ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT | |

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A. The Project Goal

1. Goal Statement. The goal is to determine the social, cultural and economic reach and effects of rural electrification.

2. Measurement of Goal Achievement. Quantitative and qualitative evaluation of the change in the affected rural families, community organizations, education, habits, customs, trade, banking, population, rural to urban migration, attitudes, local political power structures, and social patterns.

3. Assumptions of Goal Achievement. That rural electrification has been by either of three institutions - privately owned power companies, publicly owned or controlled power agencies or rural electric cooperatives; that there may or may not have been other rural development and/or infra-structure development programs; that provision was or was not made for supply of additional capital funds and that provision was or was not made for a long term continuous program of technical assistance on rural electrification development.

B. The Project Purpose.

1. Statement of the Purpose. To provide a basis for promoting effective utilization of A.I.D. loan funds for rural electrification in rural areas of LDCs.

2. Conditions Expected at the End of the Project. Techniques, methodology, and criteria for measuring effectiveness of A.I.D.'s rural electrification lending reflecting social, cultural and economics (including statistical, financial and engineering) considerations, with particular emphasis on who benefits - by socio-economic descriptors - by rural electrification.

3. Basic Assumptions.

a. Baseline data do not exist and must be constructed.

b. All concerned LDC managements - government, USAIDS, banks, power agencies, cooperative associations - are inexperienced in the initiation, development and evaluation of rural electrification.

c. Reasonably complete current data is not readily available.

d. On-site techniques and methodologies must be individually tailored, and tested through this initial project.

e. Speciality capabilities of other individuals must be tapped by researcher on an ad hoc basis.

f. Several countries and situations must be studied to obtain a reasonable spread of reliability of results.

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C. Project Outputs.

1. Outputs - U.S. Only.

- a. Correlations between availability of electric power in rural areas and other programs of rural and infra-structure development.
- b. Measures of comparative effectiveness of lending to private or state owned or controlled agencies and to rural electric cooperatives.
- c. Methodology for establishing social, cultural and economic base lines prior to initiation of rural electrification.
- d. Methodology for reconstructing social, cultural and economic base lines where rural electrification has already been initiated.
- e. Methodology for evaluating under a wide variety of circumstances the effects of rural electrification.

2. Output Indicators.

- a. Country, regional and local social, cultural and economic base line and trend studies.
- b. Comparative studies of availability of various mixes of institutions, electric power availability to users and rural or infra-structure programs.
- c. Evaluative studies of rural utility management actions, including power use, community relations, training and other pertinent technical and social assistance.

3. Target Completion Date.

December 31, 1972.

4. Basic Assumptions.

Lack of previous studies and data of this type may necessitate development of only qualitative conclusions, pending a broader range of more intensive studies.

D. Project Inputs.

1. Inputs--Implementation-Schedule.

a. U.S.

(1) AID/W - Consultant, probably under personal services, with broad social science training and experience, for not to exceed one man year.

(2) AID/W - Direct hire, project supervisor for an estimated three man months.

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b. Cooperating Country

Counterparts involved in financing, managing and developing systems under study for an estimated two man years in toto.

d. U.S. - Spring 1972

Counterpart - 1972

2. Basic Assumptions.

Preference is for consultant with little or no previous direct association with rural electric cooperatives, but having knowledge of the place electrification can take in rural development.

E. Rationale.

A.I.D., over the past decade, has loaned substantial sums of money to finance electrification of rural areas. In some instances the funds were used to extend into rural areas the facilities of state owned or controlled power agencies, some of which were converted from private ownership. In other instances, new independent rural electric cooperatives patterned after the U.S. REA financed systems were financed. Further, A.I.D. has financed extensive technical assistance and rural electric cooperative development over the same period through a series of contracts and task orders with the National Rural Electric Cooperative Association (NRECA). Countries involved have been Nicaragua, Guatemala, Costa Rica, Colombia, Ecuador, Peru, Bolivia, Brazil, Veneguella, Chile, Uruguay, Paraguay, Panama, Philippines, Vietnam, and India. During this entire period there has not been an independent professional evaluation of the effectiveness of A.I.D. financing.

F. Course of Action.

1. Implementation Plan.

Steps

- | | |
|--|---------|
| a. Solicit research specialist. | 1 month |
| b. Enter into personal sources contract. | 1 month |
| c. Specialist does desk study and develops field plan -- AID/W. | 1 month |
| d. Arrangements made for pilot field investigation. | 1 month |
| e. Specialist performs pilot field investigation, tests and if necessary revises and assembles basic sample data. | 1 month |

NOTE: At this point AID will make an evaluation of progress and among other things determine what additional technical or professional assistance might be required.

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- f. Specialist in AID/W revises plan of action, develops revised field survey techniques and methodology. 1/2 month
- g. Arrangements made for further field studies. 1 month
- h. Extensive field studies in several countries. 3 months
- i. Specialist in AID/W analyzing data, preparing preliminary reports and formalizing survey forms, techniques and methodologies. 1 month
- j. Arrangements made for revisit of several field sites and for extension to new countries. 1 month
- k. Specialist on revisit to former study areas, refines original data and expands total coverage and in new areas initiates study and data collection. 3 months
- l. Specialist in AID/W does final draft of report, holds several seminars for selected audiences. 1 month
- m. A.I.D. and other personnel review draft report. 2 months
- n. Specialist does final report. 1/2 month

2. Narrative Statement.

A.I.D. over the past decade has loaned substantial sums of money to assist in the electrification of rural areas. Some of these funds have been expended through investments by state-owned, quasi-public and private companies in a form of extensions from their existing facilities. In other instances the funds have been made available for the establishment of pilot rural electric cooperatives in large number of countries. The purpose of the study would be to identify the effectiveness of lending in this phase of the electric power sector. It would also attempt to establish a correlation between the availability of electric power in the rural areas and other rural development programs and infra-structure development programs. It would also attempt to establish the relative efficiency of lending to established utility type operations in contrast with the new institution of the rural electric cooperatives; the strength and weakness of each; and the development of the recommendations for consideration by A.I.D. in its future lending programs, whether they be for projects or for sector loans.